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October 24, 2011

**BY HAND DELIVERY**

Ms. Cynthia Brown  
Chief, Section of Administration  
Office of Proceedings  
Surface Transportation Board  
395 F Street, SW  
Washington, DC 20423-0001

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Re: ***Cargill, Incorporated v. BNSF Ry. Co.***,  
STB Finance Docket 42120

Dear Ms. Brown:

Enclosed for filing in the above-captioned matter are the original and ten copies of the public version of BNSF Railway Company's ("BNSF") Reply Evidence and Argument. BNSF's Reply Evidence and Argument is contained in a single volume. Please note that this filing contains color images.

We are filing under separate cover the highly confidential version of BNSF's Reply Evidence and Argument.

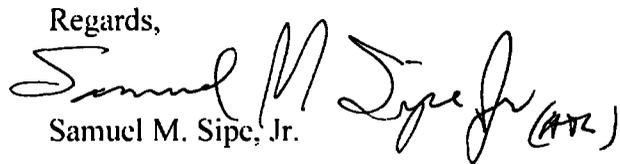
We have also included a copy of a CD that contains the public version of BNSF's Reply Evidence and Argument in PDF format.

Please date stamp and return the extra copy of this letter to our messenger.

Ms. Cynthia Brown  
October 24, 2011  
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STEPTOE & JOHNSON LLP

If you have any questions, please do not hesitate to contact me.

Regards,  
  
Samuel M. Sipe, Jr. (ATZ)

Enclosures

cc: Counsel of Record

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

**STB Docket No. 42120**

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2011

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**CARGILL, INCORPORATED v. BNSF RAILWAY COMPANY**

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**REPLY EVIDENCE AND ARGUMENT  
OF BNSF RAILWAY COMPANY**

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October 24, 2011

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**REPLY EVIDENCE AND ARGUMENT  
OF BNSF RAILWAY COMPANY**

BNSF Railway Company (“BNSF”), the defendant in the above-captioned matter, hereby submits its Reply Evidence and Argument in response to the August 25, 2011 Opening Statement of Cargill, Incorporated (“Cargill”). In its Opening Statement, Cargill sets out the basis for its challenge to the reasonableness of BNSF’s mileage-based fuel surcharge that applies to carload traffic, including agricultural and industrial products.

For the reasons explained below and in the verified statements supporting BNSF’s Reply Evidence and Argument, Cargill has failed to demonstrate that BNSF’s carload mileage-based fuel surcharge is an unreasonable practice. Cargill’s entire case is based on a retroactive assessment of BNSF’s fuel surcharge and is based on the absurd premise that BNSF should have designed a fuel surcharge in 2005 that would recover incremental fuel costs with perfect precision for years into the future, no matter how volatile fuel markets and the overall economy would behave over the period 2006-2010.

Cargill’s evidence is fundamentally flawed. First, Cargill applies the wrong legal standard by examining BNSF’s fuel surcharge only on an after-the-fact basis without any consideration of the reasonableness of BNSF’s design decisions, which BNSF shows were appropriate and carefully considered. Second, Cargill’s challenge to the fuel surcharge relies entirely on a purported showing that the surcharge recovered substantially more than BNSF’s incremental fuel costs over the period 2006-2010, but when Cargill’s calculations are corrected, the fuel surcharge actually recovered only { } of BNSF’s incremental costs over that time period, thus removing the sole basis for Cargill’s case. Third, Cargill’s after-the-fact approach to regulating fuel surcharges involves a form of true-up mechanism like that used in rate

reasonableness cases that would be impractical for the Board to administer and impossible for railroads to implement through their fuel surcharges in the real world. Cargill has failed to establish liability at the initial stage of this bifurcated proceeding, and its complaint should therefore be dismissed without further proceedings before the Board.

**I. Introduction and Overview**

The broader context of Cargill's challenge to BNSF's mileage based fuel surcharge ("MBFSC") is important. The first decade of this century saw unprecedented volatility in the price of gasoline and diesel fuel. Fuel prices unexpectedly increased over the years 2001-2008, only to drop precipitously in 2008 and then to increase again over the past two years.

Unpredictable fuel prices over the past 10 years affected virtually all sectors of the economy, but they had an especially large impact on companies, like transportation companies, whose fuel costs represent a substantial portion of operating expenses. A wide range of companies, including railroads, trucks, airlines, taxis, delivery services, and other fuel intensive service providers have adopted fuel surcharges to deal with the volatility of fuel prices over this period. Virtually all of those fuel surcharges are unregulated.

**A. BNSF Was the First Class I Railroad To Adopt A Mileage-Based Fuel Surcharge**

BNSF adopted fuel surcharges at the beginning of the last decade that were calculated as a percentage of the base rate charged for the transportation at issue. Some of BNSF's shippers expressed concern about BNSF's use of percent-of-rate surcharges and urged BNSF to adopt a mileage-based surcharge that would establish a more direct connection between fuel surcharge revenues and the amount of fuel consumed on particular movements. BNSF responded to these

shipper concerns by adopting the carload mileage-based fuel surcharge that is at issue in this case as well as a mileage-based surcharge for unit train coal and taconite.

BNSF was the first Class I railroad to adopt mileage-based surcharges. BNSF did so out of a desire to accommodate its shippers' interest in a fair surcharge mechanism that was tied to fuel consumption. BNSF implemented its mileage-based fuel surcharge effective January 1, 2006, before the Board began to investigate percent-of-rate fuel surcharges in response to shipper complaints.

In Ex Parte No. 661, *Rail Fuel Surcharges*, (STB served Jan. 26, 2007) ("*Fuel Surcharges III*"),<sup>1</sup> the Board struck down the use of percent-of-rate surcharges on regulated traffic because there was not a "reasonable nexus" between the amount of the fuel surcharge produced by the percent-of-rate mechanism and fuel consumption. But the Board also acknowledged BNSF's role as the first major railroad to adopt a mileage-based surcharge and endorsed two fundamental fuel surcharge design elements that were already being employed as components of the mileage-based surcharge that BNSF had recently adopted. First, the Board endorsed the use of mileage to determine the amount of a fuel surcharge, since fuel consumption is directly related to miles traveled. *Fuel Surcharges III*, slip op. at 9. Second, after concluding that the Energy Information Agency ("EIA") Highway Diesel Fuel ("HDF") index was a reasonable proxy for changes in a railroad's fuel costs, the Board endorsed the use of the HDF index as the basis for assessing a fuel surcharge. *Id.* at 11.

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<sup>1</sup> In this Reply Evidence, as in Cargill's Opening Evidence, BNSF refers to the Board's March 14, 2006 Notice in Ex Parte No. 661 as *Fuel Surcharges I* and the Board's proposed rule, issued on August 3, 2006, as *Fuel Surcharges II*.

**B. BNSF Designed the Fuel Surcharge to Be a Cost-Recovery Mechanism and Not a Profit Center**

BNSF viewed the Board's *Fuel Surcharges III* decision as an affirmation of its decision to adopt a mileage-based fuel surcharge. While BNSF had implemented its mileage-based fuel surcharge before the Board began to review fuel surcharges, BNSF had designed its mileage-based surcharge based on objectives and standards that the Board found to be appropriate. The Board declared that fuel surcharges should not be designed as revenue enhancement measures. As explained by BNSF's Executive Vice President, Marketing, John Lanigan, in the accompanying verified statement, the fundamental premise of BNSF's design of the carload surcharge at issue here was that the fuel surcharge was to be a cost recovery mechanism and not a profit center. The Board also declared that the fuel surcharge mechanism should be designed to have a reasonable nexus to fuel consumption. As explained by BNSF's Vice President, Marketing Support, Paul B. Anderson, in the accompanying verified statement, BNSF designed the carload surcharge to have a cent-per-mile charge that was based directly on estimates of the average fuel consumed per-mile by the traffic to which the surcharge applied and changes in the price of fuel as reflected by the HDF index.

BNSF made several key design decisions in creating and implementing its mileage-based fuel surcharge. Mr. Lanigan explains that those decisions were made with three basic objectives in mind: simplicity, fairness to shippers, and transparency. Mr. Anderson explains how BNSF implemented these objectives in the design of the surcharge mechanism using data available to BNSF at the time.

Simplicity: BNSF concluded that the fuel surcharge needed to be simple and easy for BNSF and its shippers to administer. The objective of simplicity led BNSF to adopt a single fuel surcharge that would be applied to all carload traffic, including agricultural commodities, and a

separate fuel surcharge for unit train coal and taconite traffic. A proliferation of different fuel surcharges with different underlying calculations of the surcharge amount applied to different traffic groups would only lead to confusion and potentially lead to disputes with shippers or shipper groups that felt they were being disfavored. The objective of simplicity also led BNSF to reject complex surcharge mechanisms that would be difficult to explain to BNSF's shippers and that might require frequent changes over time.

Fairness to Shippers: BNSF concluded that a fair way to recover fuel costs was to link fuel surcharge revenues to the fuel consumption characteristics of the traffic group covered by the surcharge. BNSF therefore designed the fuel surcharge based on a cent-per-mile charge that was determined based on the estimated miles-per-gallon ("MPG") achieved on average by the traffic group covered by the surcharge. BNSF's average MPG estimates indicated that carload traffic achieved roughly 4 MPG, and BNSF constructed the carload fuel surcharge based on that assumption. As Mr. Anderson explains, BNSF confirmed the validity of this MPG estimate after the mileage-based fuel surcharge was implemented through on-going monitoring of internal data. BNSF's expert witness in this proceeding, Benton Fisher of FTI Consulting Inc., shows in his attached verified statement that fuel consumption for the traffic covered by the mileage based fuel surcharge has been approximately 4 MPGs as calculated using fuel cost data reported by BNSF to the Board and the Board's URCS model over the period that the mileage-based fuel surcharge has been in effect.

Transparency: BNSF also wanted a fuel surcharge mechanism that was transparent to shippers. BNSF wanted its shippers to know exactly how BNSF would calculate the amount of the fuel surcharge from month to month. While fuel prices were unpredictable, BNSF wanted its shippers to understand how changes in fuel price would affect the fuel surcharge. BNSF also

wanted its shippers to be confident that the surcharge amounts were based on credible, public data regarding fuel prices. Therefore, BNSF chose to use the HDF index, {

} The Board subsequently

found that the HDF index was a valid basis for tracking changes in a railroad's fuel costs that may be recovered through a fuel surcharge.

**C. Cargill's Evidence Ignores the Correct Legal Standard for Assessing the Reasonableness of a Fuel Surcharge**

BNSF made reasonable fuel surcharge design decisions based on legitimate business objectives and data available to BNSF at the time it was planning to implement a mileage-based fuel surcharge. BNSF never sought to use the fuel surcharge as a profit center and BNSF repeatedly sought to accommodate shipper concerns in the surcharge design and implementation. Cargill, however, avoids the subject of fuel surcharge design and asks the Board to find that the challenged fuel surcharge was an unreasonable practice based solely on an after-the-fact (and highly flawed) analysis of the *effect* of the fuel surcharge mechanism on the recovery of BNSF's incremental costs over a 5 year period. Cargill's after-the-fact analysis completely ignores the reasonableness of BNSF's design decisions or the reasonableness of BNSF's practices relating to the implementation of a fuel surcharge. According to Cargill, if the fuel surcharge produces any over-recovery – no matter how minimal – the Board should deem the fuel surcharge mechanism unreasonable.

Cargill's opening evidence ignores the Board's unreasonable practice standard applicable to fuel surcharges. This is not a rate reasonableness case, where the reasonableness of a challenged rate is based solely on a comparison of relevant costs and revenues. This is an unreasonable practices case. The Board has made it clear that a challenge to a fuel surcharge as an unreasonable *practice* must be grounded in the theory of misrepresentation. The question in

an unreasonable practices case involves the “truthfulness of the label given to the surcharge.” *Cargill v. BNSF*, STB Docket 42120, slip op. at 2 (STB served January 4, 2011)(“*Cargill*”). The complaining shipper must show that while the carrier called the surcharge a “fuel” surcharge, the design elements selected by the carrier could not have been expected to have a “reasonable nexus” to fuel consumption. The inquiry must therefore focus on the reasonableness of the design elements of the fuel surcharge mechanism and the inquiry must look at the railroad’s intent and objectives in designing and implementing the fuel surcharge at the time those decisions were made, not in retrospect with perfect 20/20 hindsight. Did the railroad intentionally mislabel the surcharge as a “fuel” surcharge or did the railroad act reasonably in designing the fuel surcharge based on data it had available at the time?

Cargill does not allege, much less demonstrate, that BNSF’s MBFSC was designed with the intent of generating profits in excess of incremental fuel costs. Cargill’s challenge to the MBFSC focuses exclusively on an after-the-fact recovery analysis that it applies with an extreme rigidity that ignores the Board’s “no reasonable nexus” and “no real correlation” formulations for assessing the soundness of fuel surcharge design elements. Cargill’s evidence is a species of rate reasonableness analysis in the guise of an unreasonable practice claim. Therefore, even without scrutinizing the accuracy of Cargill’s cost calculations (which are far off the mark), the Board must find that Cargill has failed to submit evidence that would show the challenged fuel surcharge to be an unreasonable *practice* under the Board’s unreasonable practice standards.

**D. Cargill’s Recovery Analysis Is Seriously Flawed**

Cargill’s after-the-fact over-recovery analysis is also seriously flawed and its conclusions regarding a supposed over-recovery are flatly wrong. There are four fundamental flaws in Cargill’s over-recovery analysis that are discussed in detail by BNSF’s witness Mr. Fisher.

First, Cargill's analysis looks separately at cost recovery for BNSF's agricultural traffic and its other carload traffic, whereas BNSF applies the identical mileage-based fuel surcharge to the two traffic groups. There is no valid reason to examine costs and revenues separately for the two types of traffic. BNSF created a single surcharge mechanism that would apply to all carload traffic, and BNSF had legitimate business reasons for doing so. Indeed, most agricultural freight moves on the same trains as non-agricultural freight. It was reasonable for BNSF to establish a single fuel surcharge that would produce the same per-car surcharge for all cars on a particular carload train, regardless of what freight happened to be in a particular car.

Second, Cargill estimates BNSF's incremental costs using prohibited movement-specific adjustments to calculate URCS variable costs. Cargill's manipulation of URCS artificially reduces BNSF's cost. When URCS is used properly, BNSF's incremental costs are considerably higher than those presented by Cargill's witnesses, Messrs. Crowley and Mulholland.

Third, Cargill's cost estimate ignores the substantial non-variable locomotive fuel costs and non-locomotive fuel costs that BNSF incurs. Both must be included in the calculation to determine total incremental fuel costs. Non-variable locomotive fuel costs are included in the R-1 as part of the railroad's locomotive expenses. And the Board has recognized that non-locomotive fuel costs are also important in assessing the performance of a fuel surcharge, as reflected by the fact that the Board requires that such non-locomotive costs be reported quarterly to the Board along with locomotive fuel costs. Cargill had no reason to exclude such costs from its recovery analysis except to create the false appearance of an over-recovery.

Fourth, Cargill's analysis seeks to hold BNSF responsible for the fact that while BNSF's internal fuel cost did track changes in the HDF over the 5-year analysis period, they did not track the HDF with absolute precision. In *Fuel Surcharges III*, the Board concluded that the HDF

index reasonably tracked changes in a railroad's fuel cost and the Board endorsed the use of the HDF index as a proxy for a railroad's internal changes in fuel costs. BNSF's witness Mr. Fisher shows that the Board's conclusion that the HDF is a reasonable proxy for changes in railroad fuel costs was valid and remains so, even over the past few years of extreme fuel price volatility. But not surprisingly, the HDF did not *precisely* track BNSF's internal fuel costs over time. Cargill seeks to hold BNSF responsible for not predicting in advance how changes in volatile fuel markets would affect the relationship between the HDF index and BNSF's internal fuel prices. Cargill's position is unreasonable on its face. In any event, in granting what the Board described as a "safe harbor" for railroads' use of the HDF index, the Board recognized that the value of having fuel surcharges based on a public index created by a credible third party outweighed any concern that the use of the HDF index might result in relatively modest under- or over-recovery of actual fuel costs. By seeking to create the appearance of an over-recovery based on the differences between the HDF index and BNSF's internal fuel prices, Cargill's over-recovery analysis runs directly afoul of the Board's safe harbor.

There are other flaws in Cargill's analysis that have an impact on Cargill's calculations, including Cargill's improper reliance on BNSF's post-hedge fuel prices. Mr. Fisher shows that when the flaws in Cargill's after-the-fact analysis are corrected, there was no over-recovery of BNSF's incremental fuel costs, thus eliminating the only ground that Cargill has asserted for finding that the challenged fuel surcharge is an unreasonable practice. Set out below is Table 10 from the Fisher VS showing that Cargill grossly misrepresented BNSF's recovery of incremental costs under the challenged fuel surcharge.

**Fisher Table 10  
Fuel Cost Recovery, MBFSC Traffic**

	Cargill	Corrected
2006	{ }	{ }
2007	{ }	{ }
2008	{ }	{ }
2009	{ }	{ }
2010	{ }	{ }
<b>2006-2010 Total</b>	{ }	{ }

As Mr. Fisher explains, even the { } recovery figure in this Table overstates the recovery of BNSF’s incremental fuel costs. The cost calculations underlying the percentages in this Table reflect the fuel efficiencies that BNSF has achieved over the past few years through substantial capital expenditures, but the costs do not reflect the substantial capital expenditures made to achieve those fuel efficiencies.

It is more than a little ironic that Cargill seeks a \$29 million payout for itself based on a challenge to the first railroad fuel surcharge mechanism to voluntarily incorporate the very design elements that the Board endorsed in *Fuel Surcharges III*. The facts surrounding this case make it perfectly clear that this complaint proceeding is nothing more than an effort on the part of a large, sophisticated corporation to try to exploit the fact that the Board has said a fuel surcharge can be an unreasonable practice – a form of regulatory oversight that does not exist in virtually any other U.S. industry. But Cargill has not shown that BNSF set out to generate profits by mislabeling a charge a “fuel surcharge.” Quite the opposite is true. Cargill has failed to meet the Board’s unreasonable practice standards and its complaint must be dismissed.

## **II. Factual Background**

BNSF was the first Class I railroad to adopt a mileage-based fuel surcharge. Before BNSF implemented the challenged mileage-based fuel surcharge in January 2006, Class I railroads generally used fuel surcharges that were calculated as a percentage of the base rate. Under the percentage-of-rate surcharges, the amount of the surcharge depended on the level of the underlying transportation rate. A relatively high base transportation rate produced a relatively high fuel surcharge, and a relatively low base transportation rate produced a relatively low fuel surcharge. As the Board found in *Fuel Surcharges III*, the level of percent-of-rate fuel surcharges were thus linked to shipper demand reflected in the base rates and not to fuel consumption characteristics of individual movements. *Fuel Surcharges III*, at 6, 9. Many shippers that paid relatively high fuel surcharges complained about the percent-of-rate approach.

After John Lanigan arrived at BNSF in January 2003, he proposed that BNSF consider the adoption of mileage-based fuel surcharges as a fair means of recovering incremental fuel costs from customers. Following considerable analysis and internal discussion, BNSF became the first Class I railroad to respond to shipper concerns about percent-of-rate fuel surcharges by adopting the mileage-based fuel surcharge that is at issue in this case. BNSF announced to the public in March 2005 that it would replace its percent-of-rate fuel surcharge for carload traffic with a fuel surcharge calculated based on the mileage of a particular movement. The demand characteristics of the individual shipper would no longer have an impact on the amount of fuel surcharge that was paid by the shipper. The amount of the fuel surcharge would be determined based on the single most important characteristic of the movement associated with fuel consumption – mileage. As shown by BNSF’s expert witness Mr. Fisher, the Board’s URCS model assigns 92% to 93% of a railroad’s variable locomotive fuel costs on the basis of miles alone. Fisher VS. Table I. BNSF implemented its new mileage-based fuel surcharge in January

2006, several months before the Board initiated a review of railroad fuel surcharges on March 14, 2006 in *Fuel Surcharges I*.

After a hearing on railroad fuel surcharge practices in May 2006 and subsequent comments from interested parties, the Board concluded in January 2007 that railroads must apply fuel surcharges to regulated traffic that are designed to have a “reasonable nexus” to fuel consumption on particular movements. *Fuel Surcharges III*, at 9. The Board reasoned that if a railroad applied a fuel surcharge that was not designed to have a “reasonable nexus” to fuel consumption, calling the charge a “fuel surcharge” would be a misleading and unreasonable practice. The Board specifically endorsed the use of mileage-based fuel surcharges, recognizing that “[m]ileage is one of the primary factors that affects fuel consumption.” *Id.*

**A. The Fuel Surcharge Mechanism at Issue Here**

A team of BNSF employees worked on the design and implementation of BNSF’s mileage-based carload fuel surcharge throughout 2005. This process is described in the accompanying verified statements of John P. Lanigan and Paul B. Anderson. As those witnesses explain, BNSF’s senior management made it clear to the design team that the objective of the mileage-based fuel surcharge was to recover incremental fuel costs and not to generate profits in excess of costs. The fuel surcharge mechanism was designed with the railroad’s customers in mind. It was intended to be simple to administer, fair and transparent.

BNSF’s carload mileage-based fuel surcharge was designed to produce a surcharge that was directly linked to the amount of fuel consumed on particular movements. The key design elements were: (1) a strike price (starting point) for assessing the fuel surcharge of \$1.25 per gallon as reflected in EIA’s HDF index; (2) a step function for fuel surcharge increases above the \$1.25 strike price based on the assumption of fuel consumption by carload traffic of 4 miles per

gallon, such that an \$.04 increase in HDF fuel price would equate to a \$.01 per mile increase in fuel surcharge; (3) the surcharge is calculated for each movement based on the miles of the movement as determined by a mileage tool on BNSF's website; (4) the current HDF price is drawn from the HDF index for the month that is two months prior to the month the traffic moves (e.g. March price is drawn from January HDF index).

**B. Traffic Covered by the Carload Mileage-Based Fuel Surcharge**

BNSF designed the fuel surcharge at issue here to cover all carload traffic except unit train coal and taconite. In August 2005, when BNSF first published the carload mileage-based fuel surcharge tables that it planned to implement in 2006, a single carload surcharge table applied to agricultural freight as well as other Industrial Products ("IP") traffic. However, as explained by Mr. Anderson, BNSF's IP shippers expressed a strong concern that they would have trouble modifying their accounting systems to reflect a new mileage-based surcharge program by the planned January 1, 2006 implementation date. Therefore, as an accommodation to BNSF's IP shippers, BNSF limited the application of the carload surcharge to agricultural products when the new surcharge program was implemented in 2006.

In the January 2007 *Fuel Surcharges III* decision, the Board ruled that railroads could no longer use percent-of-rate fuel surcharges for regulated traffic. *Fuel Surcharges III*, at 6. Therefore, in April 2007 BNSF extended the existing mileage-based carload fuel surcharge program to include IP traffic. Since the original surcharge mechanism had been designed as a carload surcharge, no changes were needed in the surcharge mechanism to reflect the addition of the IP traffic.

Since 2007, a single mileage-based fuel surcharge has been applied to carload traffic, including agricultural freight and IP. That surcharge is the subject of this case. BNSF applies a

separate mileage-based fuel surcharge for unit train coal and taconite traffic. BNSF publishes on its website a mileage-based fuel surcharge table for agricultural freight and a table for IP freight (called “All Other Freight”) to make it easier for shippers of different commodities to look up their applicable fuel surcharge, but the tables are identical and refer to the same Item Number in BNSF’s Rules Book 6100 as their source.

**C. Fuel Surcharge Design Changes**

As explained by Mr. Anderson, BNSF monitored the performance of the mileage-based fuel surcharge over time to ensure that it was performing consistent with the objectives that BNSF’s management had set for the surcharge program, including the objective that the fuel surcharge not be used as a profit center. Mr. Anderson explains that BNSF’s monitoring efforts confirmed that BNSF’s original design choices were appropriate. However, by 2008, the HDF price of fuel had increased to unprecedented levels. As a result, the amount of the fuel surcharge on particular movements had become a large portion of many shippers’ overall transportation costs.

In August 2008, BNSF announced that it was going to change the strike price in the carload mileage-based fuel surcharge to reflect the new, higher level of fuel prices that were being experienced throughout the economy. This proposed change in the fuel surcharge mechanism was referred to as “rebasing” the fuel surcharge. BNSF indicated in its public announcement that it intended to use a new strike price of \$2.50 HDF rather than \$1.25 HDF. Nothing else would change in the fuel surcharge mechanism. This change would produce fuel surcharges that were a much smaller portion of a shipper’s total transportation rate. The fuel surcharge change was intended to be {

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As Mr. Anderson explains, after BNSF announced its intent to rebase the carload mileage-based fuel surcharge but before the new surcharge could be implemented, fuel prices dropped precipitously with the onset of the recent recession. When it appeared that fuel prices might drop below the proposed new strike price of \$2.50, BNSF announced in December 2008 that it was holding off on the implementation of the rebased surcharge. By 2010, fuel prices appeared to be increasing once again, and BNSF decided to implement the new, rebased surcharge mechanism beginning in 2011. In July 2010, BNSF announced its intent to implement a rebased carload mileage-based fuel surcharge in 2011. BNSF also indicated that the rebased fuel surcharge would have a new credit mechanism. If the price of fuel went below the new strike price, BNSF would credit shippers for the difference between a surcharge based on the actual HDF price below \$2.50 HDF and a surcharge based on the strike price of \$2.50 HDF. No other railroad has published a fuel surcharge with such a credit feature.

**D. Proceedings in this Case**

Cargill filed its complaint in this case on April 19, 2010, challenging BNSF's carload mileage-based fuel surcharge as an unreasonable practice. Cargill alleged that the surcharge is unreasonable because (1) "the general formula . . . [used] to calculate fuel surcharges bears no reasonable nexus to, and overstates, the fuel consumption for the BNSF traffic to which the surcharge is applied," and (2) "BNSF is using the Assailed Tariff Item to extract substantial profits over and above its incremental fuel cost increases." Comp. ¶¶ 6 and 7.<sup>2</sup> Cargill's complaint requests that the Board "prescribe reasonable fuel surcharge practices" and also seeks damages "for all unlawful fuel surcharge payments it has made." Complaint at 4.

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<sup>2</sup> Cargill also asserted that BNSF was improperly "double recovering" incremental fuel costs in both its base rate and the fuel surcharge, but the Board dismissed that claim. Cargill subsequently moved for leave to replead its "double recovery" claim to add an allegation of misrepresentation. Cargill's motion, filed January 24, 2011, is pending before the Board.

BNSF moved to dismiss Cargill's claims for relief in the form of damages on May 28, 2010. BNSF argued that Cargill's request for damages would inevitably focus on the level of the surcharge and would therefore "'impermissibly regulate rate levels, contrary to *Union Pacific*.'" BNSF Railway Company's Motion For Partial Dismissal, at 11 (filed May 28, 2010), *quoting Dairyland Power Coop. v. Union Pacific R.R. Co.*, STB Docket No. 42105, slip op. at 5 (served July 29, 2008) ("*Dairyland*"). Cargill opposed BNSF's motion to dismiss Cargill's damages claims. Cargill's Reply In Opposition To BNSF Railway Company's Motion For Partial Dismissal, at 19 note 12 (filed June 17, 2010). In a decision served on January 4, 2011, the Board denied BNSF's request for dismissal of Cargill's damage claims and deferred consideration of BNSF's argument that Cargill's claim for damages in the form of overcharges will necessarily violate the D.C. Circuit's ruling in *Union Pacific Railroad Company v. I.C.C.*, 867 F.2d 646 (D.C. Cir. 1989) ("*Union Pacific*"). The Board stated that "[a]t this early stage of the proceeding, before any finding of unlawful conduct and before any evidence has been presented, it would be premature for us to rule on this aspect of the motion to dismiss." *Cargill*, at 6. The Board also established a procedural schedule which included an accelerated period for discovery ending on April 4, 2011.

BNSF sought discovery from Cargill on the question of injury and damages. Cargill refused to provide the bulk of the requested information. Cargill argued that BNSF was not entitled to broad discovery on these issues because Cargill intended simply to claim overcharge damages, so the only question as to injury and damages would be the amount of the supposed overcharge. BNSF moved to compel the requested discovery arguing that overcharge damages would not be permissible under *Union Pacific*, so the inquiry into injury and damages must go beyond the question of whether there was a supposed overcharge. The Board declined to reach

the merits of BNSF's argument, finding instead that it would "be premature to rule on BNSF's motion to compel discovery on this damages-related issue in the absence of a finding of unlawful conduct." *Id.* The Board also bifurcated the proceeding into a liability phase, to determine whether the challenged fuel surcharge was an unreasonable practice, and a separate damages phase if necessary. It held the motion to compel discovery on damages-related issues in abeyance while the parties addressed Cargill's claim that the fuel surcharge was unlawful. *Cargill v. BNSF Ry. Co.*, STB Docket No. 42120, slip op. at 2-3 (STB served Apr. 8, 2011).

### **III. Cargill Has Failed to Apply the Correct Standard to Determine Whether BNSF's MBFSC Constitutes an Unreasonable Practice**

In an effort to present what is essentially an overcharge claim within the framework of the Board's unreasonable practice jurisprudence, Cargill distorts the applicable standards established by the Board in *Fuel Surcharges*, *Dairyland* and *Cargill*. Cargill purports to show from an after-the-fact perspective that the *effect* of the fuel surcharge mechanism was to produce an over-recovery of fuel surcharge revenue in excess of costs. And if there is an over-recovery – no matter how minimal – Cargill deems the fuel surcharge mechanism unreasonable.

Cargill's approach avoids the standard that the Board has established for determining whether a fuel surcharge is an unreasonable practice as opposed to an unreasonable rate. The Board has made clear that under *Union Pacific*, a challenge to a fuel surcharge as an unreasonable *practice* must be grounded in the theory of misrepresentation. The misrepresentation approach is necessary to distinguish an unreasonable practices challenge from a challenge to the level of the fuel surcharge brought as an unreasonable practices claim, which is prohibited under *Union Pacific*. The misrepresentation framework identified by the Board has critical importance for the standard that the complaining shipper must apply and the evidence that it must present.

The question in an unreasonable practices case involves the “truthfulness of the label given to the surcharge.”<sup>3</sup> Therefore, the analysis in such a case must focus on the reasonableness of the design elements of the fuel surcharge mechanism, and the complaining shipper must show that the design elements selected by the carrier could not be expected to have a reasonable nexus to fuel consumption. To determine the “truthfulness of the label,” the Board must be able to assess the reasonableness of the carrier’s design decisions based on data available to the carrier at the time those decisions were made. The burden is on the complaining shipper to show that the label “fuel surcharge” is not truthful because the design of the fuel surcharge mechanism in question was *intended* to generate profits substantially in excess of incremental costs incurred to purchase fuel. The analysis must focus on the railroad’s intent and objectives at the time the fuel surcharge was designed.

Cargill completely ignores the Board’s focus on the design of the fuel surcharge mechanism and thus sidesteps the whole issue of misrepresentation. Cargill does not allege, much less demonstrate, that BNSF’s MBFSC was designed with the intent of generating profits in excess of incremental fuel costs. Cargill focuses exclusively on an after-the-fact over-recovery analysis to demonstrate that in retrospect the fuel surcharge supposedly generated revenue that exceeded BNSF’s incremental fuel cost. An after-the-fact analysis of over-recovery might be relevant evidence in an unreasonable practice case (assuming it is an accurate analysis, which is not the case here), but only if it corroborates other evidence that there was an intentional design flaw in the surcharge mechanism. The shipper’s showing must focus on design, but

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<sup>3</sup> *Cargill*, at 2 (the Board in *Fuel Surcharges* was “not proposing new limits to the total amount that railroads can charge through a combination of base rates and fuel surcharges, and that it was addressing only the truthfulness of the label given to the surcharge”).

Cargill says nothing about the reasonableness of BNSF's design choices. It talks only about the quantitative values assigned to the fuel surcharge design elements.

Cargill applies its ex-post analysis with an extreme rigidity, effectively requiring that an FSC mechanism exhibit absolute after-the-fact precision in cost recovery. Cargill's analysis is a form of "true-up" mechanism intended to ensure nothing more nor less than 100 percent cost recovery.<sup>4</sup> That approach is inconsistent with the Board's "no reasonable nexus" and "no real correlation" formulations, which on their face contemplate something less than Swiss watch precision in the design of a fuel surcharge. No railroad could ever implement Cargill's ex-post approach in the real world. Importantly, the consequence of Cargill's mis-application of the Board's standards is to remove its fuel surcharge claim from the realm of legitimate unreasonable practice claims and to place it squarely in the realm of rate claims. Cargill's evidence is a species of rate reasonableness analysis in the guise of an unreasonable practice claim.

**A. The Board's Standards for Determining Whether a Fuel Surcharge Is an Unreasonable Practice Are Significantly Different from those Asserted by Cargill.**

To determine whether Cargill has demonstrated that BNSF's MBFSC constitutes an unreasonable practice, it is instructive to focus at the outset on Cargill's formulation of the legal standard that it contends it must satisfy. In the Counsel's Argument portion of its Opening Statement, Cargill frames the standard as follows:

The Board's decisions in *Fuel Surcharges*, *Dairyland* and *Cargill* make one point crystal clear: a rail carrier engages in an unreasonable practice if it collects fuel surcharges under a fuel surcharge program that exceed the incremental fuel costs of the

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<sup>4</sup> Of course, Cargill does not even propose a mechanism that would allow BNSF to re-coup any under-recoveries.

traffic to which the fuel surcharge is applied. Simply stated, the Board has ruled that carriers cannot lawfully use their fuel surcharge programs as profit centers.

Cargill Op.at 17-18. In their Verified Statement, Cargill's witnesses Thomas D. Crowley and Robert D. Mulholland claim that they have undertaken an over-recovery analysis required by the Board's *Dairyland* decision:

The first part of our study set out to determine whether BNSF was adhering to the Board's directives in *Dairyland*, that the fuel surcharge revenues it was collecting on its Ag and Other Freight traffic under the ATI captured only BNSF's incremental fuel cost increases above the \$0.73 per gallon BNSF fuel price claimed to be embedded in BNSF's freight rates.

Crowley/Mulholland VS at 6.

Cargill's formulation of the legal standard it must satisfy is incomplete and unduly narrow. By adhering to this inappropriate standard, Cargill veers far off the course that a complaining shipper must follow to demonstrate that a fuel surcharge mechanism constitutes an unreasonable practice.

The core principle set out in the Board's decisions in *Fuel Surcharges*, *Dairyland* and *Cargill* is that a fuel surcharge mechanism can be an unreasonable practice where it is labeled as a fuel surcharge but is in fact intended by the carrier to generate revenues in excess of incremental fuel costs. The focus on the truthfulness of the fuel surcharge "label" and the necessary inquiry into the railroad's objectives are critical to distinguishing an unreasonable practices challenge from a rate reasonableness challenge. *Union Pacific* does not allow a shipper to challenge the level of a fuel surcharge without satisfying the statutory jurisdictional requirements for a rate challenge. Thus, a challenge to a fuel surcharge as an *unreasonable practice* must involve something more than just an examination of the level of the fuel surcharge rates.

In its first pronouncement on this subject, the Board stated that “railroads should not call a charge a fuel surcharge if it is designed to recover more than the incremental cost of fuel attributable to the movement involved.” *Fuel Surcharges II*, at 4-5. The focus of the inquiry would be on the railroad’s design decisions – did the railroad design the surcharge to produce revenues that exceeded incremental costs? If so, then the railroad’s label of “fuel” surcharge would be misleading. The problem was not that the railroad charged too much – that is an issue that would have to be addressed in a rate reasonableness case – instead, the railroad *designed* the surcharge mechanism to recover more than its incremental fuel costs but then *intentionally sought to mislead* its shippers by telling them that the charge was only a cost recovery mechanism.<sup>5</sup>

The Board elaborated on this misrepresentation theory in its January 2007 decision in *Fuel Surcharges III*:

[T]he term “fuel surcharge” most naturally suggests a charge to recover increased fuel costs associated with the movement to which it is applied. If it is used instead as a broader revenue enhancement measure, it is mislabeled. This sort of mislabeling appears designed to avoid the type of response a carrier would likely receive if it were to honestly inform a shipper that a higher rate was being imposed to recover not only the increased fuel cost of serving that shipper, but also the increased cost of fuel for another shipper’s traffic – which is what would often occur under rate-based fuel surcharges. . . . We believe that imposing rate increases in this manner, when there is no real correlation between

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<sup>5</sup> The Board made it clear that its authority to find fuel surcharges to be an unreasonable practice was grounded on a misrepresentation theory: “Congress, in the rail transportation policy at 49 U.S.C. 10101(9), explicitly stated that it is the policy of the United States Government ‘to encourage honest and efficient management of railroads.’ Moreover, Congress exempted the rail carriers from the consumer protection requirements of the federal Trade Commission Act, presumably not because Congress intended to permit carriers to mislead their customers, but because our authority to proscribe unreasonable practices embraces misrepresentations or misleading conduct by the carriers. And the record in this proceeding provides extensive testimony by shippers who have expressed concern about carriers raising their rates on the pretext of recovering increased fuel costs.” *Fuel Surcharges II*, at 7 (footnote omitted).

the rate increase and the increase in fuel costs for that particular movement to which the surcharge is applied, is a misleading and ultimately unreasonable practice.

*Fuel Surcharges III*, at 7.

Thus, the standard established by the Board in *Fuel Surcharges* is that a fuel surcharge is an unreasonable practice if the railroad intentionally designs the surcharge to generate profits while referring to the surcharge as a “fuel” surcharge, implying that it is intended to recover only incremental fuel costs. The Board’s focus on the railroad’s intent in designing a fuel surcharge mechanism and the truthfulness of the “fuel surcharge” label was carried forward in the *Dairyland* and *Cargill* decisions. In *Dairyland* the Board repeated its assertion from *Fuel Surcharges II* that “railroads should not call a charge a fuel surcharge if it is *designed* to recover more than the incremental cost of fuel attributable to the movement involved.” *Dairyland*, at 1 (emphasis added). In its January 2011 ruling on BNSF’s Motion for Partial Dismissal in this case, the Board stated “that it was not proposing new limits to the total amount that railroads can charge through a combination of base rates and fuel surcharges, and that it was addressing only the truthfulness of the label given to the surcharge.” *Cargill*, at 2.

In addition to making clear that the inquiry in an unreasonable practices case must focus on the design of the fuel surcharge, the Board has given guidance on the design elements that should be examined. Specifically, the Board’s unreasonable practice standard focuses on the connection between the design elements of a fuel surcharge mechanism and fuel consumption on particular movements. In *Fuel Surcharges III*, the Board found percent-of-rate fuel surcharges to be unreasonable because there was no apparent connection between the design elements of those fuel surcharges and fuel consumption:

Because railroads rely on differential pricing, under which rates are dependent on factors other than costs, a surcharge that is tied to the

level of the base rate, rather than to fuel consumption for the movement to which the surcharge is applied, cannot fairly be described as merely a cost recovery mechanism. Rather, a fuel surcharge program that increases all rates by a set percentage stands virtually no prospect of reflecting the actual increase in fuel costs for handling the particular traffic to which the surcharge is applied.

*Fuel Surcharge III*, at 6. Thus, “if a carrier chooses to use a fuel surcharge program, it must be based upon attributes of a movement that directly affect the amount of fuel consumed. In other words, there must be a reasonable nexus to fuel consumption.” *Id.* at 9; *see also Dairyland*, at 5 (“We require only that any fuel surcharge program a railroad uses ‘must be based on attributes of a movement that directly affect the amount of fuel consumed.’”)

In *Dairyland*, the Board incorporated the “reasonable nexus” formulation into a description of what a complaining shipper must show to demonstrate that a fuel surcharge mechanism constitutes an unreasonable practice:

Accordingly, when a complainant challenges a carrier’s fuel surcharge program as an unreasonable practice, it must show that the general formula used to calculate fuel surcharges bears no reasonable nexus to the fuel consumption for the traffic to which the surcharge is applied. By way of example, a complainant might challenge the factors used to calculate the surcharge on the ground that they are not attributes of a movement that directly affect the amount of fuel consumed.

*Id.* at 6.

The Board has also expressed its “no reasonableness nexus” formulation as “no real correlation between the rate increase and the increase in fuel costs for that particular movement to which the surcharge is applied. . . .” *Fuel Surcharge II*, at 7.

As discussed more fully below, Cargill has ignored the Board’s core focus on the carrier’s design of a fuel surcharge as the basis for determining whether the fuel surcharge label is a misrepresentation amounting to an unreasonable practice. Instead, Cargill’s evidence

focuses on an after-the-fact comparison of fuel surcharge revenues generated by the challenged surcharge to incremental fuel costs. At most, the results of such an ex post analysis might suggest the need for a closer look at the reasonableness of a railroad's design choices. As the Board explained in its January 2011 ruling in this case, "Cargill may present evidence to demonstrate that design elements in the challenged fuel surcharge allow BNSF to recover substantially in excess of the actual incremental cost of fuel incurred in providing the rail services to the entire traffic group to which the surcharge applies." *Cargill*, at 5. In other words, any evidence relating to over-recovery must ultimately lead back to an examination of the "design elements in the challenged fuel surcharge" and the reasonableness of the railroad's design choices.

Contrary to Cargill's apparent assumption, the Board's formulations of what a complainant must prove do not suggest that a mere showing of *any divergence* between the amount of fuel surcharge revenue recovered and the incremental cost of fuel, no matter how slight, must lead to a finding of unreasonable practice. Cargill's evidence is insufficient to support its unreasonable practice claim because it does not address the Board's unreasonable practice standard. The complaining shipper in an unreasonable practices case must show that the design elements selected by the carrier were not intended to have a reasonable nexus to fuel consumption and were instead intended to generate revenues substantially in excess of incremental costs. Cargill has not made this showing.

**B. Cargill Has Not Alleged or Made out a Case Based on Faulty Fuel Surcharge Design or any other Sort of Misrepresentation**

Although Cargill alleges, based on its after-the-fact analysis, that BNSF's MBFSC has functioned as a "profit center," it does not allege, much less show, that BNSF designed its MBFSC mechanism with the intention or expectation of generating profits in excess of

incremental fuel costs. (We will show in Section IV that BNSF most emphatically did not do so.)

Indeed, Cargill does not even take issue with any design elements of BNSF's MBFSC or attempt to "challenge the factors used to calculate the surcharge on the ground that they are not attributes of a movement that directly affect the amount of fuel consumed." *Dairyland* at 6. Cargill accepts BNSF's basic design of a charge assessed on the basis of (1) miles traveled and (2) fuel consumption per mile. Cargill does not question the source of miles used by BNSF to calculate miles traveled. It does not question the use of a strike price or the fact that the strike price is expressed in terms of the HDF Index.

Rather than taking issue with the *design elements* that BNSF selected as the basis for its MBFSC, Cargill takes issue with the *values* that BNSF assigned to those design elements – specifically the value that BNSF selected for the MPG design element, and the value that BNSF selected for the HDF strike price. Relying on its after-the-fact analysis, Cargill says that the MPGs, which it calls the "step function," should have been 5.18 for Ag and 4.57 for "Other Freight" rather than 4. It says the strike price should have been \$1.298 per gallon rather than \$1.25 per gallon. But it does not question that MPGs or a strike price were appropriate design elements for BNSF's MBFSC.

It is certainly possible that a fuel surcharge mechanism with appropriate design elements could still be misused by a railroad to generate profits in excess of incremental costs by intentionally assigning values to the design elements that do not have a reasonable nexus to fuel consumption. But the Board's role in evaluating the railroad's decision about the specific values assigned to surcharge design elements should be limited to determining whether the railroad had a reasonable basis for the fuel surcharge design decisions. The Board should not second-guess

reasonable business decisions by railroads. If the evidence shows that the railroad had no intention of using the fuel surcharge to generate profits, and the railroad had a reasonable basis for the specific decisions it made as to the values assigned to the specific design elements, there is no basis for finding the challenged fuel surcharge to be an unreasonable practice.

It would not make sense to assess the reasonableness of the values that the railroad assigned to the design elements based on an after-the-fact review of data that were not available to the railroad at the time it assigned the values to the design elements. But this is the only basis on which Cargill evaluates the challenged fuel surcharge in this case. The sole basis for Cargill's challenge to the values BNSF assigned to the design elements of the fuel surcharge is its after-the-fact analysis of cost recovery over a five year period.<sup>6</sup> Cargill's exclusive reliance on an after-the-fact analysis underscores its departure from the Board's reasonable practice standards. By relying exclusively on an after-the-fact analysis, Cargill avoids even asking whether BNSF's MBFSC might have embodied a "reasonable nexus to fuel consumption" at the time BNSF adopted it. And unless it answered that question in the negative, Cargill could have no basis for saying that BNSF designed its fuel surcharge with the objective of recovering profits in excess of incremental fuel costs. Given the approach it took, Cargill was not in a position to make that claim and did not in fact make it.

Given Cargill's exclusive reliance on an after-the-fact perspective to assess the performance of BNSF's MBFSC, Cargill is not in a position to say anything meaningful about the design of that charge and, in fact, does not attempt to do so. The only thing that Cargill can say is that the dollars generated by that MBFSC over a period of 5 years do not precisely match

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<sup>6</sup> BNSF produced over 350,000 pages of discovery materials in response to Cargill's document requests. Cargill cites a handful of documents relating to miles-per-gallon assumptions, which it mischaracterizes, as Mr. Anderson explains. In the end, however, Cargill relies entirely on its after-the-fact analysis to support its claim that the MBFSC was unreasonable.

what Cargill claims to be the incremental fuel costs incurred by BNSF. As we will show in Section V, Cargill's quantitative analysis and its claim of overcharge turn out to be far wide of the mark. However, the important point for determining whether Cargill has met its burden of showing an unreasonable practice is not that Cargill's numbers are wrong. The important point is that Cargill has not undertaken the showing of faulty fuel surcharge design that the Board said it must make.

**C. Cargill's Insistence on Absolute Precision on an After-the-Fact Basis Does Not Satisfy the Board's "No Reasonable Nexus" Test**

As discussed above, the Board's "no reasonable nexus" standard is properly understood as a means of assessing the bona fides of a carrier's fuel surcharge design. The question to be asked is whether there is a reasonable nexus between the fuel surcharge imposed by the carrier on a given movement and the fuel consumed in handling that traffic. Based on its after-the-fact analysis of cost recovery in its Opening Statement, Cargill would apparently say that a fuel surcharge that generates any over-recovery of incremental fuel costs has "no reasonable nexus" to fuel consumption, but that is not the case.

The Board's "no reasonable nexus" formulation (and the related "no reasonable correlation" formulation) does not require absolute precision in the recovery of incremental fuel costs as Cargill suggests. The phrase "reasonable nexus" suggest some degree of flexibility. To the extent that it is relevant to look at coverage after the fact, the Board would expect and accept some variance from an outcome where incremental costs precisely equal fuel surcharge revenues at a particular point in time. The fact that the Board would not expect absolute precision is apparent from the following passage in *Fuel Surcharges III*:

[E]ven a mileage-based fuel surcharge, although not perfect, more closely tracks changes in fuel costs for an individual shipment than

does a rate-based fuel surcharge. Mileage is one of the primary factors that affects fuel consumption. In contrast, the base rate often does not closely correlate with fuel consumption, as it routinely reflects demand (and to the extent it reflects costs, fuel costs are less than 20% of a railroad's operating costs). Second, we are not precluding railroads from incorporating as many factors that affect fuel consumption as they wish in calculating fuel surcharges. *Nor are we requiring them to incorporate every conceivable such factor, as we agree that would be impracticable.* But if a carrier chooses to use a fuel surcharge program, it must be based upon attributes of a movement that directly affect the amount of fuel consumed. In other words, there must be a reasonable nexus to fuel consumed.

*Fuel Surcharges III*, at 9 (emphasis added). Nothing in this paragraph remotely suggests that the Board would find a fuel surcharge mechanism to be reasonable only if it produces an absolutely precise match between fuel surcharge revenues and incremental fuel costs on an after-the-fact basis. On the contrary, the Board indicates that carriers have some leeway in selecting the design elements and that the Board itself would not get into the business of prescribing "every conceivable such factor" in the interest of precision. Further, the Board recognizes the practicability of a fuel surcharge mechanism to be an important consideration. Read fairly, this passage requires that a fuel surcharge "must be based upon attributes of a movement that directly affect the amount of fuel consumed," but it does not say that the incremental cost of fuel consumed must precisely equal the fuel surcharges assessed.

In *Dairyland*, the Board said that "there are also practical reasons why we cannot expect a precise match between fuel surcharge revenues and increased fuel costs for any one shipper." *Dairyland* at 5. The same is true for fuel surcharge revenues in the aggregate for the thousands of BNSF movements subject to the challenged MBFSC for a five year period, which is the scope of Cargill's analysis. Any estimate of average fuel consumption across a broad group of shippers will necessarily be an approximation. And regardless of how well founded that approximation is at the time the fuel surcharge is designed, it is only a prediction of what will come to pass. The

Board knows well from its experience in stand-alone cost cases that the projections about future railroad operations and related costs will inevitably fail to match actuals due to unavoidable change over time.<sup>7</sup> Fuel consumption will change to a non-trivial extent over time as congestion on line-haul movements and in rail yards waxes and wanes. Fuel consumption changes over time due to changes in traffic mix and shipment patterns. Numerous other factors affecting fuel consumption may come into play over time.

Cargill does not acknowledge that some variance from absolute precision in cost recovery would be expected under any fuel surcharge mechanism, nor does it offer any suggestion as to what degree of variance would be appropriate under the Board's "no reasonable nexus" formulation. And it is no answer for Cargill to say – as it probably will – that it need not worry about a "reasonable nexus" because BNSF's over-recovery is "substantial." Leaving aside for the moment that there is no substantial over-recovery, the fact is that Cargill effectively claims that every nickel of over-recovery is unreasonable. It recalibrates BNSF's MBFSC so that MPG's are 5.18 for Ag and 4.57 for "Other Freight" rather than 4 and so that the strike price is \$1.298 rather than \$1.25. These are the values that Cargill claims yield aggregate recovery

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<sup>7</sup>See, e.g., *Arizona Pub. Serv. Co. v. The Atchison Topeka & Santa Fe Ry. Co.*, 3 S.T.B. 70, 74 (1998) ("actual traffic figures will almost always invariably fail to match exactly with yearly (or multi-year) traffic projections. Under [shipper's] logic, we would need to reopen and recalculate the cumulative difference between SAC revenues and costs for the entire (20-year) SAC period each time that actual traffic volumes for a new period become available. Like the classical figure Penelope, we would be faced with constantly restarting our task anew, never able to bring to a conclusion a rate case using a SAC analysis that includes future traffic estimates. Thus, we cannot accept the notion that any discrepancy between forecasted and actual traffic volumes warrants reopening and recalculation of a SAC analysis."); *W. Fuels Ass'n Inc. v. BNSF Ry. Co.*, STB Docket No. 42088, 2009 WL 2221011 at \*6 (served July 27, 2009) ("In this case, operating expenses for 2009 are much higher than previously forecasted. Short of reopening the entire case and updating all the forecasts used therein, it is impossible to determine a priori what amount BNSF would be permitted to charge if a new SAC analysis were undertaken. But we cannot be constantly unraveling and rewaving our earlier work whenever actual events prove different from those previously forecasted.").

equal to incremental cost at the end of a five year period. Cargill also announces that it will claim for itself in damages every nickel that the recalibrated MBFSC mechanism shows as over-recovery on Cargill traffic. In Cargill's after-the-fact view, there is no room for any flexibility or variance in the results that a fuel surcharge mechanism yield over time, even one with appropriate design elements. For Cargill "reasonable nexus" is a straightjacket.

It would make no sense to find BNSF's MBFSC unreasonable under Cargill's approach because the precise step functions and strike prices that Cargill calculates after the fact could not have been known at the time BNSF designed its mileage-based fuel surcharge mechanism. That is, Cargill's standard of retroactive precision would be impossible to satisfy at the time the fuel surcharge is designed. And under Cargill's approach, the "correct" values to be used in the MBFSC mechanism that generate revenues that precisely equal incremental cost would be constantly changing over time as various factors that affect fuel consumption and other elements of the MBFSC change over time. Indeed, Cargill's own calculations showing variance in over-recovery from one period to another demonstrate that the values Cargill has come up with to produce the "right" answer at the end of five years would not have produced the right answer at any other step along the way. Nor would the values that Cargill has come up with produce the "right" answer in the future. Cargill's approach is illogical and impracticable.

**D. Cargill's Approach to Determining the Reasonableness of BNSF's MBFSC Demonstrates that it Is Focused Solely on the Level of the Charge, in Violation of *Union Pacific***

Cargill has ignored the unreasonable practice standards actually articulated by the Board and embarked on a showing of over-recovery that is essentially a rate reasonableness showing. That is, Cargill purports to show that BNSF's MBFSC mechanism is unreasonable because incremental revenues generated by the fuel surcharge exceed incremental fuel costs on an after-

the-fact basis. The fact that this showing is made in the aggregate for all traffic subject to the challenged MBFSC rather than as an individualized showing for a particular shipper or movement does not alter its character as a species of rate reasonableness analysis. The Board has determined that rate reasonableness can be addressed through an aggregate showing, e.g., under the revenue adequacy constraint of Constrained Market Pricing.<sup>8</sup> And Cargill itself reveals in its claim of damages that the ultimate goal of its analysis is to claim damages for itself, an individual shipper, based on an overcharge. Thus, Cargill's evidence demonstrates all of the problems the D.C. Circuit found with the ICC's unreasonable practice decision in *Union Pacific*: "[T]he 'so-called "practice" [was] manifested exclusively in the level of rates,' [Cargill's] analysis had 'all the earmarks of a rate proceeding,' and [Cargill's proposed] remedies consisted of rate relief (prescribed rates and refunds)." *Fuel Surcharges II*, at 3 (quoting *Union Pacific*).

**IV. BNSF Designed the MBFSC to be a Fair and Simple Cost-Recovery Mechanism and Not a Profit Center**

Cargill's affirmative case fails because Cargill's after-the-fact analysis does not address the reasonableness of BNSF's design of the challenged mileage-based fuel surcharge or whether the surcharge as designed would reflect a "reasonable nexus" to fuel consumption. Cargill claims that BNSF used the fuel surcharge as a profit center, but does not allege, much less show, that BNSF designed its fuel surcharge with the goal of generating revenue in excess of incremental fuel costs. BNSF's witnesses Messrs. Lanigan and Anderson show that BNSF never intended to recover more than the incremental cost of fuel through the MBFSC and that the decisions made by BNSF regarding the design and implementation of the fuel surcharge were reasonable means of achieving that goal of cost recovery.

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<sup>8</sup> See *Coal Rate Guidelines, Nationwide*, 1 I.C.C. 520, 534-537 (1985).

In short, as shown below, BNSF carefully designed an MBFSC mechanism that was intended to have a reasonable nexus to fuel consumption. BNSF was candid in labeling its surcharge a “fuel surcharge” because the mechanism was intended to recover the incremental cost of fuel and not to generate profits in excess of incremental costs. This is precisely the sort of fuel surcharge mechanism that should pass muster under the Board’s unreasonable practice standards as set out in *Fuel Surcharges III*, *Dairyland*, and *Cargill*.

**A. BNSF’s MBFSC Design Decisions In 2005 were Reasonable**

In early 2005, BNSF decided to adopt mileage-based fuel surcharges, becoming the first rail carrier to do so. Previously, BNSF, like other rail carriers, had assessed fuel surcharges based on a percentage of the base rate. After coming to BNSF, Mr. Lanigan, BNSF’s new Chief Marketing Officer, initiated a review of BNSF’s fuel surcharges to consider whether they should be changed from a percent-of-rate basis to a mileage basis.<sup>9</sup> Mr. Lanigan was familiar with mileage-based fuel surcharges from his prior experience at Schneider National, a trucking company. BNSF decided to change to mileage-based fuel surcharges even though it recognized that there would be major administrative difficulties in doing so because BNSF believed such surcharges would be a direct and reasonably accurate way of recovering incremental fuel costs from BNSF’s customers based on the fuel consumed in handling their traffic, given that mileage is the primary factor affecting fuel consumption. Adopting mileage-based fuel surcharges would also address the requests of some customers that BNSF consider adopting mileage-based fuel surcharges as an alternative to percent-of-rate surcharges. Lanigan VS at 3-4.

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<sup>9</sup> Verified Statement of John P. Lanigan (hereafter “Lanigan VS”) at 3.

1. **MBFSC Design Objectives**

Having decided to implement mileage-based fuel surcharges, BNSF had to establish the design objectives for the surcharges. Mr. Lanigan made it clear to all BNSF employees working on the design of the surcharge mechanism that the overall goal of mileage-based fuel surcharges was to recover BNSF's incremental fuel costs and *not* to function as a profit center.<sup>10</sup>

Consistent with this overall goal, BNSF set out three basic design objectives for mileage-based fuel surcharges. First, BNSF wanted a fuel surcharge mechanism that was simple and easy for BNSF and its shippers to administer, particularly given that BNSF's thousands of customers range from large, sophisticated firms to small companies. Complexity in design would likely create confusion and lead to disputes. Therefore, BNSF did not want too many mileage-based fuel surcharge tables or tables that would have to be changed frequently. Lanigan VS at 6.

Second, BNSF wanted to be fair to its shippers by designing a mileage-based fuel surcharge that would result in a reasonably close linkage between the amount of the fuel surcharge and the fuel consumed by the traffic subject to the fuel surcharge. BNSF knew that the mechanism could not be linked to fuel consumption with absolute precision given the many variables affecting fuel consumption on individual movements and uncertainties associated with measuring fuel consumption and fuel cost, but BNSF believed that there could be a reasonably close linkage. Lanigan VS at 6-7.

Third, BNSF wanted the fuel surcharge mechanism to be transparent so customers could easily determine the fuel surcharge associated with particular movements. Lanigan VS at 7.

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<sup>10</sup> Lanigan VS at 5. *See also, e.g.,* Exhibit 4 to Lanigan VS. {

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**2. These Objectives Were Carried Out in the 2005 Design of the MBFSC**

In March 2005, BNSF announced to the public that it would implement a carload mileage-based fuel surcharge, as well as mileage-based fuel surcharge mechanisms for other types of traffic beginning in 2006.<sup>11</sup> BNSF did not describe the specific mileage-based fuel surcharge mechanisms in the March 2005 announcement, as it was still working internally on designing the surcharges. Anderson VS at 3. A significant lead time was needed before implementation of mileage-based fuel surcharges to allow BNSF time to design the surcharges and to allow customers as well as BNSF adequate time to implement and test changes in internal systems that would be required to accommodate mileage-based fuel surcharges. Lanigan VS at 7.

Guided by the objectives set out by BNSF management, many BNSF employees worked for months to design the MBFSCs that were to take effect in 2006. Decisions had to be made regarding the components of the MBFSC, including (1) the number of mileage-based fuel surcharge tables and the traffic to which each table would apply, (2) the miles per gallon (MPG) assumption that would be incorporated into each table, (3) the mileage source that would be used to assess the fuel surcharge, (4) the fuel price index on which the MBFSC would be based, and (5) the strike price at which the MBFSC would begin to be assessed. Anderson VS at 3-4.

**a. Single Carload Mileage-Based Fuel Surcharge; No Separate MBFSC for Ag Shuttle Traffic**

Consistent with its simplicity objective, BNSF decided in 2005 to design a single-mileage-based fuel surcharge that would apply to all carload traffic, including agricultural products (“Ag”) and industrial products (“IP”), other than unit train coal and taconite. Anderson VS at 5. BNSF decided on a single carload mileage-based fuel surcharge because the {

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<sup>11</sup> Verified Statement of Paul B. Anderson (hereafter “Anderson VS”) at 3.

} Anderson VS at 5-6. In 2005, BNSF never designed separate MBFSC for Ag traffic and what Cargill calls “other freight.” Anderson VS at 5.

BNSF gave some consideration to creating a separate mileage-based fuel surcharge that would apply to Ag shuttle traffic,<sup>12</sup> a subset of Ag traffic, since {

} Lanigan VS at 9. However, for the reasons discussed in the verified statement of Mr. Lanigan, he, in consultation with BNSF employees from the Ag business unit, decided that, {

} it would not be appropriate to develop a separate MBFSC for Ag shuttle traffic, and that BNSF’s single carload MBFSC should apply to Ag shuttle traffic as well as other Ag traffic. Lanigan VS at 9-11.

**b. Miles Per Gallon (MPG) Assumption**

Since the carload MBFSC would assess a surcharge based on the number of miles associated with the movement, BNSF decided to incorporate into its fuel surcharge mechanism an estimate of the average miles per gallon that would be achieved by the trains transporting the traffic subject to the surcharge. The MPG assumption determines how the cents per mile charge in the surcharge will increase as fuel prices increase, *i.e.*, it determines the step function of the fuel surcharge. Thus, if a fuel surcharge is based on a 4 MPG assumption, the step function will cause the surcharge to increase by \$0.01 per mile for every \$0.04 per gallon increase in fuel price above the strike price. As one component of this decision, BNSF had to decide whether the

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<sup>12</sup> Ag shuttle trains are typically blocks of 110 or more cars that load at the same origin and are delivered to the same destination. Lanigan VS at 10.

MPG assumption should be expressed as an integer rounded to a whole number or a fraction carried to a decimal point, and what mileage source it should use to estimate average MPGs.

(1) **BNSF Decides to Use Whole Number**

BNSF decided to express the MPG assumption used in the carload MBFSC as a whole number, not a number carried out to a decimal point. While BNSF wanted the carload MBFSC to have a reasonable nexus to the consumption of fuel by trains transporting the carload traffic subject to the surcharge, BNSF did not want to adopt an MPG assumption that implied a level of precision in tracking fuel consumption that simply did not exist. Anderson VS at 8. As more fully explained in Mr. Anderson's verified statement at 8-10, {

} The use of a whole number to express the MPG assumption would avoid these potential problems.

(2) **BNSF Initially Decides to Use Highway Miles**

To estimate MPGs, BNSF had several mileage sources to choose from – (1) actual miles travelled by the trains handling the traffic which would reflect miles associated with circuitous routing or rerouting for operational purposes, (2) shortest rail miles between origin and destination as specified in tariffs which would exclude any miles resulting from circuitous routing or rerouting, or (3) highway miles between origin and destination which tend to be shorter than either shortest rail miles or actual rail miles. Anderson VS at 10. As more fully explained in Mr. Anderson's verified statement at 12, BNSF initially decided to use highway miles from the published Household Goods Carriers' (HHG) Mileage Guide as its mileage basis

for the MPG assumption and for assessment of the fuel surcharge. It did so for several reasons, including {

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(3) **BNSF Incorporates 4 MPG Assumption Into the Carload MBFSC**

In June 2005, using highway miles and 2004 data for traffic that would be subject to the carload MBFSC, BNSF estimated an average { } MPG for that carload traffic. Anderson VS at 12-13. BNSF then decided that the carload MBFSC should incorporate a 4 MPG assumption. In August 2005, BNSF published a carload mileage-based fuel surcharge with a step function that incorporated the 4 MPG assumption (the surcharge would increase \$0.01 per mile for every \$0.04 increase in fuel prices), explaining that this fuel surcharge would be assessed using highway miles.<sup>13</sup>

In its opening evidence, Cargill cites to BNSF documents {

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<sup>13</sup> Anderson VS at 12; August 8, 2005 BNSF announcement is Exhibit 2 to Anderson VS.

c. **BNSF Selects HDF as its Fuel Price Index**

BNSF selected the Highway Diesel Fuel (HDF) index as the fuel price index for the carload MBFSC. As a result, the cents per mile charge in the challenged surcharge increased (or decreased) based upon the increase (or decrease) in the fuel price in the HDF index. As explained by Mr. Anderson, BNSF chose the HDF index because {

} Anderson VS at 14.

d. **BNSF Selects \$1.25 Strike Price**

BNSF selected \$1.25 as the strike price, or starting point, for the assessment of its carload MBFSC. As a result, the carload MBFSC would only be assessed if the average monthly HDF price equaled or exceeded \$1.25. As explained more fully in Mr. Anderson's verified statement at 15-16, BNSF selected the \$1.25 strike price because {

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Based on regression analyses performed in 2004-2005, BNSF concluded that the \$1.25 HDF strike price was roughly equivalent to an internal BNSF fuel cost of \$0.73.<sup>14</sup>

{

} Anderson VS at 15.

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<sup>14</sup> Anderson VS at 15; *See also* Exhibit 8 to Anderson VS.

e. **Two Month Lag**

BNSF decided to assess the carload MBFSC on a monthly basis using the average monthly HDF price from two months earlier. For example, the March carload MBFSC would be based on the average HDF price from January of that year. BNSF's decision to incorporate this two month lag was reasonable. {

} Anderson VS at 16.

**3. BNSF Modified the Carload MBFSC Design in late 2005 (Prior to Implementation) to Accommodate Shippers' Concerns**

After completing basic work on the carload MBFSC design, BNSF published its MBFSC tables, including the carload MBFSC, in August 2005.<sup>15</sup> Thereafter, BNSF received customer feedback that led it to modify its carload MBFSC in two respects before the surcharge took effect in January 2006.

First, as announced in October 2005, BNSF decided to implement the carload MBFSC for Ag traffic only, effective 2006. BNSF's other carload customers (its IP customers) needed more time to adjust their own systems to accommodate a mileage-based fuel surcharge so BNSF postponed implementation of the carload MBFSC on IP traffic to a later date.<sup>16</sup> After the

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<sup>15</sup> Anderson VS at 16. *See also* Exhibit 2 to Anderson VS.

<sup>16</sup> Anderson VS at 17-18. *See also* Exhibit 3 to Anderson VS.

Board's 2007 decision in *Fuel Surcharge III*, BNSF extended the application of the carload MBFSC to regulated IP traffic, as originally intended. Anderson VS at 31-32.

Second, in response to customer concerns, BNSF announced in October 2005 that it would use rail miles rather than highway miles in assessing the carload MBFSC. Ag customers had expressed opposition to BNSF's previously announced decision to use highway miles because certain BNSF tariffs applicable to Ag traffic already used rail miles and it would create information systems issues if BNSF were to use highway miles to assess the MBFSC. Anderson VS at 18. BNSF decided to use short rail miles rather than actual rail miles in assessing the carload MBFSC because {

} as more fully explained by Mr. Anderson at 19-20 of his verified statement.

After BNSF decided to assess the carload MBFSC based on short rail miles, BNSF looked at MPGs using rail miles to confirm that it was still reasonable to base the step function in the carload MBFSC on a 4 MPG assumption. As further explained in Mr. Anderson's verified statement at 18 and 19, this review led BNSF to conclude that it was reasonable to retain the 4 MPG assumption.

**B. Following Implementation, BNSF Took Reasonable Steps to Carefully Monitor How the Carload MBFSC Was Performing**

After the carload MBFSC went into effect in January 2006, BNSF began to monitor it to get a sense whether the surcharge was achieving BNSF senior management's goal that the MBFSC operate as an incremental fuel cost recovery mechanism and not as a profit center. These monitoring efforts included an annual review of MPGs associated with the traffic subject to the carload MBFSC, a validation study of the fuel consumption assumptions used in generating BNSF's MPGs, and periodic analyses of whether BNSF's carload fuel surcharge revenues covered BNSF's incremental fuel costs for the carload traffic. These monitoring efforts

corroborated that there was no design flaw in the carload MBFSC and showed that there continued to be a reasonable nexus between fuel surcharge revenues obtained under the carload MBFSC and BNSF's incremental fuel costs for the carload traffic subject to the MBFSC.

**1. BNSF's Annual Review of MPG**

After implementing the carload MBFSC in 2006, BNSF monitored the MPG of the traffic subject to the surcharge to confirm that the 4 MPG assumption underlying the carload table continued to be a reasonable assumption. Anderson VS at 22-24. As shown in the table below, those annual MPG reviews confirmed that it was reasonable for BNSF to continue to incorporate a 4 MPG into the carload MBFSC.

**Annual MPG For Carload Mileage-Based Fuel Surcharge**

<b>Estimate Date</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Carload MPG Assumption</b>	4	4	4	4	4
<b>Carload MPG Annual BNSF Review<sup>17</sup></b>	{ }	{ }	{ }	{ }	{ }

At page 28, n. 29 of its opening evidence, Cargill cites MPG estimates prepared in

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<sup>17</sup> The 2006 and 2007 MPG estimates were {

}

Anderson VS at 23-24.

**2. Other BNSF Monitoring Activities**

BNSF engaged in other monitoring activities after the implementation of the carload MBFSC to assess how the surcharge was performing.

**a. BNSF's Validation of Fuel Consumption Assumptions {  
} Used in MPG Estimates**

{

}

**b. BNSF's Fuel Cost Recovery Analyses**

BNSF also carried out periodic analyses of how well BNSF's carload MBFSC was recovering the incremental fuel costs associated with the traffic subject to the MBFSC on both historic and prospective bases. It was challenging for BNSF to get a clear picture of the carload MBFSC's performance from these recovery analyses, however, given the extreme volatility in the fuel markets and the overall dislocations in the economy that began in the fall of 2008 with the onset of the Great Recession and its significant impact on BNSF traffic volumes. Anderson VS at 21. Figure 2 below from the Fisher Verified Statement shows the extreme volatility in fuel prices after the MBFSC was announced. While these external factors made it difficult for BNSF to draw firm conclusions from the recovery analyses, BNSF concluded after hard study and evaluation that the carload MBFSC was on the right track. Anderson VS at 22.

**Figure 2**  
**Monthly HDF and BNSF Fuel Cost per Gallon, 2000-2010**

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**3. Rebasing the Carload MBFSC**

Beginning in 2008, BNSF became concerned that due to rising fuel prices, fuel surcharge revenues had become a large portion of total revenue for freight shipments. Fuel prices had increased by 30% in 2007 and were projected to increase by another 22% in 2008.<sup>18</sup> By early 2008, many of BNSF's customers had expressed a preference for a rebased carload MBFSC that

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<sup>18</sup> Anderson VS at 32. *See also* Exhibit 24 to Anderson VS, at 2-3.

would set a higher strike price, accompanied by a base rate increase that would recover more of BNSF's fuel costs in the base rate. Anderson VS at 33.

In the summer 2008, BNSF decided to rebase the carload MBFSC by increasing the strike price from \$1.25 HDF to \$2.50 HDF. BNSF intended that the rebasing of the carload MBFSC {

} Anderson VS at 33-34.

In early August 2008, BNSF announced the proposed rebasing to the public. But shortly after BNSF made this announcement, the economy went into a tailspin, and fuel prices dropped precipitously, causing BNSF concern that the average HDF price could drop below \$2.50 HDF. Consequently, BNSF decided not to implement the rebasing at that time but to wait and see what happened in the fuel markets and broader economy. Anderson VS at 34-35.

In 2010, the economy stabilized somewhat and the average price of HDF had been above \$2.50 per gallon since the middle of 2009 and was expected to remain above \$2.50 per gallon. Therefore, in July 2010, BNSF announced that it would implement the rebased carload MBFSC with the higher \$2.50 per gallon HDF strike price effective January 2011. The rebase took effect six months after the announcement to give BNSF adequate time to calculate the rebased rates and complete the manual process of incorporating the rebased rates into BNSF's revenue price system. Anderson VS at 34.

The rebased carload MBFSC also contained a credit mechanism so that if the average price of HDF ever fell below the \$2.50 strike price, BNSF would compensate its customers using the same step function that is used when prices are above the strike price, *i.e.* a one cent per mile reduction in price for every \$0.04 decline in HDF fuel price below \$2.50. BNSF was the first

rail carrier – and is still the only rail carrier – to offer its customers the benefit of a credit mechanism if the average HDF fuel price falls below the strike price. Anderson VS at 35.

The change in fuel surcharge strike price from \$1.25 to \$2.50 preserved the basic design of BNSF's MBFSC, while incorporating a reasonable change in the value of a key element of the fuel charge design – the HDF strike price. BNSF's 2010 decision to rebase the carload fuel surcharge has made the fuel surcharge a much smaller portion of the carload customer's total transportation bill and, by doing so, has substantially reduced the impact of the unpredictable spread between the HDF price and BNSF's internal fuel cost.

**V. Cargill's Analysis of BNSF's Recovery of Incremental Fuel Costs Is Flawed.**

Instead of examining the reasonableness of BNSF's design choices described above, Cargill bases its critique of the MBFSC solely on a flawed showing by Crowley/Mulholland that the MBFSC supposedly generated revenue over the period 2006-2010 that exceeded BNSF's incremental fuel costs over that period. In particular, Cargill contends that BNSF operated the fuel surcharge as a "profit center" by collecting more than its incremental fuel costs, which Crowley/Mulholland define as BNSF's fuel costs above \$0.73 a gallon.

The existence of a mismatch between fuel surcharge revenues and BNSF fuel costs over \$0.73 per gallon on an after-the-fact basis, however, cannot be grounds for finding that a particular fuel surcharge mechanism constitutes an unreasonable practice. As explained previously, the reasonableness of the fuel surcharge must turn on the reasonableness of the fuel surcharge design based on the railroad's objectives and the information available at the time the fuel surcharge was designed. Not even the "best" surcharge ever designed – and no one knows exactly what that is – would be able to anticipate the factors that affect fuel consumption and fuel cost over time with perfect accuracy. Thus, some mismatch between revenues and costs is

inevitable. By taking the position that BNSF should have known exactly how its fuel surcharge mechanism would perform over time, Cargill sets a standard that is unachievable.

Cargill nonetheless bases its entire case on its after-the-fact analysis that purports to show that BNSF collected fuel surcharge revenues in excess of its incremental fuel costs. Cargill contends that any such excess is an “overcharge” or “over-recovery” that makes a fuel surcharge unreasonable.<sup>19</sup> Cargill applied the wrong standard in assessing whether the MBFSC was a reasonable practice, and the Board should reject Cargill’s complaint as a result. In addition, the attached Verified Statement of Mr. Fisher shows that Cargill’s “overcharge” analysis is seriously flawed. When the Crowley/Mulholland overcharge analysis is corrected, Mr. Fisher shows that the MBFSC did not, in fact, generate revenues in excess of incremental costs.

**A. Cargill Improperly Divides the Single MBFSC Program into Two Programs**

Cargill begins its “overcharge” analysis by asserting that the MBFSC should be treated as two separate surcharges, one applicable to “Ag” traffic and the other applicable to “Other Freight.”<sup>20</sup> Cargill then assesses separately the supposed recovery of costs for Ag and Other Freight. This is a fiction created by Cargill in an effort to manipulate the results it presents and is without legal foundation.

As explained by Mr. Anderson, BNSF designed the MBFSC as a single carload surcharge mechanism that would be applied uniformly to all carload traffic except coal. Mr. Anderson explains that BNSF had strong reasons to include all carload traffic except coal in a single surcharge mechanism, including {

} BNSF implemented the carload surcharge only for Ag traffic in

2006 as an accommodation to industrial products shippers who needed more time to convert their

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<sup>19</sup> See, e.g., Cargill Op. at 3; Crowley/Mulholland VS at 16.

<sup>20</sup> See, e.g., Cargill Op.at 3.

internal systems to deal with mileage-based surcharges. But in 2007, BNSF responded to the Board's *Fuel Surcharges III* decision by extending the carload surcharge to what Cargill describes as Other Freight, as BNSF originally intended. Since 2007, a single mechanism has been used to assess fuel surcharges to all BNSF's carload traffic.

In *Dairyland*, the Board stated that a challenge to the reasonableness of a fuel surcharge as an unreasonable practice must "show that the general formula used to calculate fuel surcharges bears no reasonable nexus to the fuel consumption for the traffic to which the surcharge is applied." *Dairyland*, at 6. The traffic to which the challenged MBFSC is applied is all of BNSF's carload traffic, including Ag and Cargill's Other Freight traffic. It was not appropriate for Cargill to break out Ag traffic from Other Freight in carrying out its recovery analysis.

**B. Cargill's Calculation of BNSF's Incremental Fuel Costs Is Flawed.**

Cargill's calculation of BNSF's incremental costs is based on its assessment of variable locomotive costs using URCS. Using a methodology that departs from the standard URCS calculations and that uses movement-specific adjustments, Crowley/Mulholland purport to calculate the total variable locomotive fuel costs for the traffic group subject to the MBFSC. To determine BNSF's incremental costs, they then subtract from the total the amount of variable locomotive costs associated with BNSF's fuel price up to \$0.73.

BNSF does not take issue with Cargill's use of URCS to assess the portion of BNSF's incremental fuel costs attributable to variable locomotive fuel costs. The Board uses URCS for regulatory costing purposes. However, as Mr. Fisher explains in his Verified Statement, Cargill mis-applies URCS to determine BNSF's variable locomotive costs. Moreover, Cargill's assessment of BNSF's costs fails to include BNSF's non-variable locomotive fuel costs and

BNSF's non-locomotive fuel costs. BNSF's MBFSC is a cost recovery mechanism for all of BNSF's fuel costs, and the Crowley/Mulholland analysis falls short of calculating BNSF's incremental fuel costs by failing to include non-variable locomotive and non-locomotive fuel costs.

**1. Cargill Erred In Its Application Of URCS To Determine BNSF's Variable Locomotive Costs.**

Mr. Fisher explains that Crowley/Mulholland mis-apply URCS in assessing BNSF's variable locomotive fuel costs. As Mr. Fisher explains, URCS develops three locomotive fuel-related variable unit costs – a Locomotive Unit Mile (“LUM”) fuel cost, a Gross Ton Mile (“GTM”) fuel cost and a Switch-Engine Minute (“SEM”) fuel cost. Each of these unit costs is applied to the corresponding units – the LUM unit fuel cost is multiplied by LUMs, the GTM unit fuel cost is multiplied by GTMs, and the SEM unit fuel cost is multiplied by SEMs. The sum of these calculations for a particular movement produces the variable fuel cost of the movement.

Crowley/Mulholland modified the way URCS calculates locomotive fuel costs and made several movement-specific adjustments that produce meaningless URCS results. First, Crowley/Mulholland modified the URCS separate calculation of a LUM fuel cost and folded the LUM fuel cost calculation into the calculation of GTM fuel costs. Crowley/Mulholland admit that their calculations are an effort to over-ride the standard, system-average approach used in URCS by using a “movement-specific locomotive count,” “movement-specific trainload gross trailing tonnage,” and “movement-specific fuel cost per GTM.” But they offer no justification for this departure from standard URCS methodology. In fact, this approach violates the entire scheme of URCS as it relates to the calculation of locomotive fuel costs.

URCS allocates LUM costs to the traffic handled by a particular train in a way that recognizes that a train that is heavier than average consumes more fuel than an average train. By converting the LUM cost to a GTM cost, contrary to standard URCS methodology, the Crowley/Mulholland approach repudiates this URCS assumption and produces absurd results. As explained by Mr. Fisher, the approach used by Crowley/Mulholland assigns the same fuel costs to locomotives that are generating power for heavy trains and for light trains. This assumption obviously makes no sense. For trains that have the same number of locomotives, it is obvious that the locomotives powering the heavy trains will consume more fuel than the locomotives powering light trains.

Mr. Fisher explains that Crowley/Mulholland's effort to produce a movement-specific adjustment to the way URCS calculates locomotive fuel costs incorporates additional errors. For example, Crowley/Mulholland base their assessment of train weights only on loaded trains and fail to consider empty trains. In addition, in implementing their movement-specific adjustments to the number of locomotives and train sizes, Crowley/Mulholland ignore the way URCS treats "way-trains" and other trains that carry single and multiple car shipments.<sup>21</sup> As to switching costs, Crowley/Mulholland use the system-average URCS unit cost that is based on an assumption that switching occurs every 200 miles, but they apply it to a movement-specific number of switches that does not necessarily occur at 200-mile intervals. The result is meaningless.

The Board adopted a rule against making movement-specific adjustments in applying URCS to avoid the unnecessary complexity of movement-specific adjustments and the unreliable results produced by selective movement-specific adjustments such as those proposed by

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<sup>21</sup> "Way-trains" are trains used to originate or terminate traffic. URCS, when implemented as intended, reflects the relatively higher costs of these trains.

Crowley/Mulholland. Crowley/Mulholland's use of movement-specific adjustments to calculate BNSF's URCS costs clearly violates Board precedent. The Board has made clear that parties to Board proceedings must rely on the standard input parameters and costing assumptions within the URCS model. In *Major Issues in Rail Rate Cases*, the Board expressly prohibited the use of movement-specific adjustments, stating: "we will limit the parties to the use of the unadjusted URCS Phase III movement costing program and disallow movement specific adjustments other than those automatically made by URCS."<sup>22</sup> The STB concluded that allowing selective adjustments would produce unreliable results:

[A]s a matter of econometric theory, piecemeal or incomplete adjustments to URCS are suspect. There are hundreds of individual expense categories that URCS uses to estimate the variable cost of a movement and the parties do not seek to adjust all of them. Indeed, many of the expense categories could not be changed, because movement-specific information is unavailable. Yet selective replacement of system-average costs with movement-specific costs may bias the entire analysis, rendering the modified URCS output unreliable.<sup>23</sup>

The STB made clear that its ban on movement-specific adjustments is not limited to rate cases in *Entergy Arkansas, Inc. v. Union Pacific Railroad Co.*, STB Docket No. 42104 (served Mar. 15, 2011) ("*Entergy*"). There, the Board rejected movement-specific adjustments proffered by UP. As the Board explained:

We do not, however, accept UP's locomotive and private rental car adjustments. These are precisely the kind of selective movement-specific adjustments to URCS that undermine the reliability of the costing model. *Major Issues in Rail Rate Cases*, EP 657 (Sub-No. 1), slip op. at 50-51 (STB served Oct. 30, 2006) (noting that piecemeal movement-specific adjustments were expensive and were not leading to a more accurate result than using the system-average figures). Just as we prohibit such piecemeal adjustments to URCS in rate cases, so too shall we prohibit such adjustments to URCS in § 10705 complaints.<sup>24</sup>

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<sup>22</sup> STB Ex Parte No. 657 (Sub-No. 1), slip op. at 60 (served Oct. 30, 2006) ("*Major Issues*").

<sup>23</sup> *Major Issues* at 51-52.

<sup>24</sup> *Entergy* at 13.

Significantly, Cargill's witness Crowley, who is sponsoring movement-specific adjustments in this case, appeared as a witness for Complainants in *Energy* and challenged UP's movement-specific adjustments as "unacceptable," "outside of what the Board has determined appropriate," and a "selective adjustment of system average cost [that] has resulted in a bias in its analysis, rendering it unreliable."<sup>25</sup> The similar movement-specific adjustments he sponsors here are subject to his own prior criticism and should be rejected.

## **2. Cargill Failed to Include All of BNSF's Fuel Costs**

Cargill also treats the variable locomotive fuel costs calculated by Messrs. Crowley and Mulholland in their URCS-based variable cost analysis as if they were BNSF's total fuel costs. As Mr. Fisher explains, this is incorrect for two reasons.

First, the Crowley/Mulholland calculations are explicitly based on only the *variable* portion of locomotive fuel costs assigned by URCS. BNSF's *total* locomotive fuel costs are comprised of both the variable costs allocated by URCS and the non-variable costs reported in BNSF's form R-1, but not allocated by URCS. Table 6 of Mr. Fisher's Verified Statement shows that a substantial portion of BNSF's total locomotive fuel costs reported in BNSF's R-1 are not treated as variable costs in URCS, particularly locomotive costs in yard operations. While these costs are not variable, they are costs that BNSF incurs to run its railroad and that increase when fuel prices increase. They should not be ignored in the cost recovery analysis.

Second, the Crowley/Mulholland analysis ignores BNSF's substantial non-locomotive fuel costs. These costs are associated with various activities that support BNSF's transportation services, including fuel for BNSF maintenance vehicles, work trains and lubrication oil, among other things. It is both fair and logical that a railroad should seek to recover non-locomotive fuel

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<sup>25</sup> Redacted Public Version of Rebuttal Verified Statement of Thomas D. Crowley, filed July 9, 2010, at 12-13 (included as FTI workpaper "TDC Entergy Rebuttal.pdf").

costs under a fuel surcharge program. Indeed, the Board expressly requires railroads to include non-locomotive fuel costs in the quarterly Report of Fuel Cost, Consumption, and Surcharge Revenue that it implemented as an outgrowth of the fuel surcharge proceedings.<sup>26</sup> Any calculation of BNSF's "total" fuel costs must include non-locomotive fuel as well as locomotive fuel.

**3. Cargill's Calculations Improperly Reflect the Effects of Hedging**

As Mr. Fisher explains, the Crowley/Mulholland analysis also uses the wrong BNSF fuel costs for its calculations of BNSF's incremental fuel costs. Messrs. Crowley and Mulholland use BNSF fuel costs that include the gains and losses from BNSF's hedging activities. It makes no sense to judge whether the BNSF MBFSC bears a reasonable nexus to BNSF's fuel costs based on what is effectively an after-the-fact adjustment of BNSF's actual fuel costs to take account of BNSF hedging activity. Indeed, as explained by Mr. Anderson, {

} Anderson VS at 27.

As Mr. Fisher further explains, hedging is, by its nature, an activity with uncertain outcomes. This is borne out by BNSF's actual experience with hedging; in some periods hedging has had a net positive impact on BNSF's fuel costs while in others it has had a net negative impact. Accurately predicting the effects of hedging on the performance of a fuel surcharge mechanism would be impossible. Indeed, the Board encouraged railroads to employ a publicly available index published by an entity other than the railroads themselves as a proxy for future changes in fuel prices paid by railroads to promote transparency and to permit shippers to

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<sup>26</sup> See 49 C.F.R. § 1243.3; *Rail Fuel Surcharges*, STB Ex Parte No. 661 (Sub-No. 1) (served Aug. 14, 2007).

calculate what their fuel surcharges will be in a more predictable manner. Needless to say, there is no way that a public index would be able to capture the effects of railroad hedging.

Assessing the reasonableness of BNSF's fuel surcharge based on the success of BNSF's hedging activities or how well the fuel surcharge mechanism predicts the outcome of hedging would make no sense. Reasonable fuel-surcharge mechanisms, like BNSF's MBFSC, are intended to recover the incremental cost of fuel and are not intended to account for the unpredictable results of financial hedges. Pre-hedge fuel prices must be used in the analysis to evaluate whether the fuel surcharge mechanism is reasonably tracking what it is supposed to track.

**4. When the Errors In The Crowley/Mulholland Analysis Are Corrected, It Is Clear That Cargill Has Grossly Overstated BNSF's Recovery Of Incremental Fuel Costs**

Mr. Fisher's Verified Statement restates the "overcharge" calculations presented in the Crowley/Mulholland Verified Statement, correcting the errors described above. To correct the errors Mr. Fisher took the following steps:

- First, Mr. Fisher applied URCS system-average costs and standard URCS procedures to determine the variable locomotive fuel costs of each movement in the traffic group analyzed by Crowley/Mulholland, and aggregated those costs for each month.
- Second, Mr. Fisher added the non-variable portion of BNSF's locomotive fuel costs to the variable locomotive fuel costs to determine the total locomotive fuel costs of the traffic to which the MBFSC was applied.
- Third, using the URCS assumption as to the cost per gallon of fuel, Mr. Fisher determined the number of gallons of locomotive fuel consumed by the traffic to which the MBFSC was applied.
- Fourth, Mr. Fisher then used BNSF's fuel surcharge reports to the STB to determine the amount of BNSF's fuel costs that are not contained in the R-1 locomotive fuel costs, i.e., BNSF's non-locomotive fuel. Mr. Fisher determined the percentage by which the gallons of locomotive fuel calculated

above needed to be increased each month to account for non-locomotive fuel and the corresponding increase in fuel price.

- Fifth, Mr. Fisher calculated BNSF’s incremental costs by multiplying the total gallons of fuel for each month as calculated above by the difference between BNSF’s actual fuel price for the month (excluding the effects of hedging) and \$0.73. This approach essentially follows the approach used by Crowley/Mulholland after correcting the errors described previously in the Crowley/Mulholland costing estimates.

Table 9 to Mr. Fisher’s Verified Statement, reproduced below, compares the original and corrected versions of the Crowley/Mulholland “overcharge” analysis.

**Fisher Table 9  
Fuel Cost Recovery Using BNSF Costs, MBFSC Traffic**

	Cargill	BNSF
2006	{ }	{ }
2007	{ }	{ }
2008	{ }	{ }
2009	{ }	{ }
2010	{ }	{ }
<b>2006-2010 Total</b>	{ }	{ }

Mr. Fisher’s revised calculations show that under the corrected Crowley/Mulholland analysis, BNSF collected approximately { } more under its MBFSC than its incremental costs above \$0.73 a gallon. As Mr. Fisher explains, while the recovery in this Table exceeds 100%, a closer look at the corrected results shows that there is nothing about these recovery percentages that would lead to a conclusion that the fuel surcharge had a design flaw. In 2006, when the recovery percentage was { }, the MBFSC was applied only to agricultural products even though it was originally designed to cover all carload traffic. When the MBFSC was extended to all carload traffic as originally designed in 2007, the recovery percentage went below 100%.

Also, the highest percentage year, 2009, was a year in which the U.S. economy went through the most severe economic turmoil since the Great Depression. The next highest

percentage year, 2010. was a period of modest improvement in the overall economy and some stabilization in fuel markets, but the lingering effects of the recession were still being felt in 2010. As explained by Mr. Fisher, the downturn in the economy substantially reduced traffic volumes, leading to an unexpected increase in fuel efficiency as a result of reduced congestion. Higher fuel efficiency led to lower costs and therefore higher cost recovery. Had traffic continued to grow during 2009 and 2010 as in the past, the recovery percentages for those years would likely have been significantly lower.

BNSF did not intend its MBFSC to be a source of profits and never regarded it as such. Given BNSF's objective of incremental cost recovery, the reasonableness of its fuel surcharge design and the unavoidable uncertainty in predicting fuel consumption and fuel costs into the future, the Board could not reasonably conclude that a fuel recovery of { } percent over a five year period constitutes a "substantial" over-recovery or that it establishes that there was "no reasonable nexus" between BNSF's fuel surcharge revenues and fuel consumption. In any event, as discussed below, the modest recovery over 100% for the 5-year period is entirely attributable to variations between the HDF index and BNSF's internal fuel price which cannot be the basis for finding BNSF's MBFSC to be an unreasonable practice.

**C. Variations Between The HDF Index And BNSF's Internal Fuel Price Should Not Be Reflected In The Recovery Analysis**

The Crowley/Mulholland recovery analysis is carried out by comparing the fuel surcharge revenue for a particular month, which as explained previously is based on the HDF index price for the second prior month, to BNSF's incremental fuel costs for the month in which the surcharge is assessed. Crowley/Mulholland obtain the revenues for this comparison from BNSF's internal records, and Mr. Fisher relied on the same revenue assumptions. BNSF's incremental costs are determined by multiplying the estimated gallons of fuel consumed in the

month by the incremental price of fuel for the month. Crowley/Mulholland define the incremental price of fuel as the difference between BNSF's actual fuel price for the month and \$0.73. Under this approach, surcharge revenues are assessed based on one fuel price index – HDF – while BNSF's costs are determined using a different measure of fuel price – BNSF's actual, internal fuel cost. There is a “spread” between the HDF index and BNSF's fuel costs due to the fact that the HDF index is a retail fuel index while BNSF purchases diesel fuel in wholesale markets. This spread, while reasonably stable, changes from month-to-month. When the spread between the HDF and BNSF's internal fuel cost changes, the recovery analysis which compares HDF-based revenues to BNSF incremental costs based on BNSF's internal fuel costs will be skewed.

Mr. Fisher shows that the variation or spread between the HDF index and BNSF's internal fuel cost accounts for the entire amount of Cargill's supposed over-recovery that is left after correcting the other errors in the Crowley/Mulholland analysis that are discussed above. If the same price index – HDF – is used as the basis for both the revenue and cost side of the recovery analysis, the recovery percentage over the Crowley/Mulholland 5-year analysis period drops below 100%. To ensure a consistent basis for comparing fuel surcharge revenues and fuel costs, Mr. Fisher modified the recovery analysis underlying Fisher Table 9 above to calculate BNSF's incremental costs by multiplying gallons consumed in each month by the difference between the actual HDF for that month and the \$1.25 HDF strike price rather than the difference between BNSF's internal cost of fuel in the month and \$0.73. The results are set out in Mr. Fisher's Table 10 reproduced below.

**Fisher Table 10  
Fuel Cost Recovery, MBFSC Traffic**

	Cargill	Corrected
2006	{ }	{ }
2007	{ }	{ }
2008	{ }	{ }
2009	{ }	{ }
2010	{ }	{ }
<b>2006-2010 Total</b>	{ }	{ }

It is not appropriate to assess the reasonableness of the design of BNSF’s fuel surcharge mechanism based on the month-to-month variations between HDF and BNSF’s internal fuel price as Cargill does. Mr. Fisher shows that the HDF index reasonably tracks BNSF’s internal fuel costs, but the differential between the two sets of numbers does not remain constant over time. This is not surprising in light of the extreme volatility of fuel prices over the past several years and the fact that the HDF index reflects fuel prices in retail markets while BNSF purchases diesel fuel in very large quantities in wholesale markets.

BNSF does not have control over the “spread” between the HDF index price and its internal fuel costs. It is impossible to predict how future changes in fuel markets will affect fuel prices in the two different markets – retail and wholesale. While the two sets of prices are likely to move very closely in tandem, the spread between them inevitably varies from month-to-month. Any recovery analysis that compares revenues using the HDF index to costs using changes in wholesale prices will reflect the unpredictable changes in the spread between the HDF price and BNSF’s internal fuel cost and thereby distort the recovery analysis. When the spread widens, the recovery percentage will appear to increase and when the spread narrows, the recovery percentage will appear to decrease.

BNSF reasonably chose to use the HDF index as the basis for assessing fuel surcharges, and it would not be appropriate to hold BNSF responsible for the unpredictable changes that occur over time between BNSF's internal fuel cost and the HDF index price. Indeed, the Board established a safe harbor for the use of the HDF index in *Fuel Surcharges III* to protect railroads from precisely the type of distorted analysis that Crowley/Mulholland present here. In *Fuel Surcharges III*, the Board expressed its strong preference that railroads use a public index as the basis for assessing fuel surcharges rather than an internal index developed by the railroads, originally proposing that railroads be *required* to use the HDF index. After reviewing comments on its proposed rule, the Board concluded that it would instead create a "safe harbor" for railroads that choose to use the HDF as the basis for the surcharge.

The Board's safe harbor was expressly based on the conclusion, supported by the record in Ex Parte 661, "that the EIA Index accurately reflects changes in fuel costs in the rail industry." *Fuel Surcharges III*, at 11. As the Board explained:

Because the EIA Index has been the subject of notice and comment and has withstood scrutiny on this record as discussed above, we conclude that it is a reasonable index to apply to measure changes in fuel costs for purposes of a fuel surcharge program. Thus, it provides a "safe harbor" upon which carriers can rely for an index.

*Id.*

Cargill acknowledges that the Board created a safe harbor for the use of the HDF index but asks the Board to interpret the safe harbor in a manner that renders it meaningless. Cargill argues that railroads can use the HDF index, but they cannot use it as a proxy for changes in a railroad's costs. See Crowley/Mulholland VS at 22 (the Board "did not endorse the use of HDF prices as surrogates for railroad fuel prices"). The argument is absurd. The Board wanted railroads to use a public index like HDF precisely to avoid having the amount of the surcharge

determined based on internal fuel price calculations to which the shippers were not privy. Since the Board found that the HDF index “accurately reflects changes in fuel costs.” the Board created the safe harbor so that railroads would be “safe” from challenges to their use of the HDF index to assess fuel surcharges rather than some undisclosed index based on their internal fuel costs. The Board clearly intended to allow railroads to use the HDF as a proxy for changes in their internal costs.

Cargill contends, however, that only an “adjusted” HDF price may be used in a fuel surcharge. Cargill argues that any BNSF fuel surcharge should have reflected { } HDF rather than being based directly on the HDF price as published by the EIA. In other words, Cargill contends that the HDF price cannot be used in the fuel surcharge as the EIA published it because HDF prices do not accurately track internal BNSF costs. But that contention is directly contrary to what the Board has said. The Board ruled that for purposes of a fuel surcharge, the HDF price “accurately reflects changes in fuel costs.” For this reason, the Board concluded that if railroads use the HDF price in their surcharge – not some fraction of the HDF price – they will have the benefit of a safe harbor. Moreover, the adjusted HDF that Crowley/Mulholland say BNSF should have used necessarily depends on internal BNSF data, and therefore requiring its use would entirely defeat the Board’s objective of having railroads use a public fuel price index. Cargill’s argument to the contrary is an impermissible collateral attack on the Board’s conclusions in *Fuel Surcharges III*.

Indeed, Cargill’s position here – that surcharge revenues must be tied to internal fuel price changes rather than changes in the HDF – was made by Mr. Crowley in the Fuel Surcharge proceeding and rejected by the Board. There, Mr. Crowley, representing Western Coal Traffic League, argued against the use of any public fuel price index as the basis for assessing fuel

surcharges “because data on the carriers’ actual change in fuel prices is readily available, and it is a simple process to utilize this information in accounting for changes in railroad fuel prices.” Comments of the Western Coal Traffic League, Verified Statement of Thomas D. Crowley and Daniel L. Fapp, Rail Fuel Surcharges, STB Ex Parte No. 661, at 17 (filed October 2, 2006). But the Board rejected the Crowley suggestion and provided a safe harbor to railroads that use the HDF index as the basis for assessing the fuel surcharge.

The Crowley/Mulholland recovery analysis now seeks to resurrect the approach previously proposed by Mr. Crowley by using the “carrier[’s] actual change in fuel prices” rather than the changes in a public fuel price index to determine the amount of the surcharge that should have been assessed. The Board cannot allow Cargill to circumvent the Board’s safe harbor by seeking to hold BNSF responsible for the fact that its internal fuel price did not precisely track changes in the HDF index. When the Board’s safe harbor is given effect in the recovery analysis by eliminating the impact of differences between BNSF’s internal fuel price and the HDF index, it is clear that the challenged MBFSC did not produce excessive revenues.

**D. Cargill’s “Overcharge” Analysis Also Ignores Significant Capital Investments Made by BNSF to Achieve Fuel Efficiencies**

Even the corrected figures stated by Mr. Fisher are not the end of the story. They likely overstate the extent of BNSF’s fuel cost recovery during the 2006 to 2010 period because they do not account for the substantial capital expenditures made by BNSF in recent years to improve fuel efficiency. Cargill complains that BNSF’s fuel efficiency improved over that period and argues that such efficiency gains should have been reflected in an offsetting reduction in BNSF’s fuel surcharge revenues. This argument, of course, suffers from the same defect as the other aspects of Cargill’s after-the-fact analysis: Cargill appears to be taking the position that BNSF should have known at the time it designed its MBFSC what was going to happen over the course

of time and should have structured its fuel surcharge in the first place with the benefit of perfect foresight.

Moreover, Cargill simply ignores the fact that it costs money to achieve improved fuel efficiency. As Mr. Fisher explains, the costs used to determine BNSF's incremental fuel costs for the 2006 to 2010 period reflect the efficiency gains that BNSF has been able to achieve through BNSF's extensive efforts to improve fuel efficiency across its network. But the incremental cost calculations used in the recovery analysis do not reflect at all the costs that BNSF incurred to achieve those efficiency gains, for example the large capital costs associated with purchasing new fuel efficient locomotives and other fuel-efficiency enhancements.

**VI. Cargill's Retroactive Development of Alternative Fuel Surcharge Values Is Illogical and Based on Flawed Assumptions.**

Cargill's liability case rests entirely on its purported showing of an over-recovery generated by the fuel surcharge from 2006-2010. Cargill's case fails because it does not even address the key issue of whether BNSF's MBFSC was designed to recover incremental fuel costs or whether BNSF intended that it generate profits in excess of incremental costs. Moreover, BNSF has shown above that Cargill's improper after-the-fact analysis fails on its own terms. Cargill's over-recovery evidence is flawed and does not support a finding that the fuel surcharge generated revenues in excess of costs.

In the second part of their Verified Statement, Messrs. Crowley and Mulholland show how they believe the values used in BNSF's fuel surcharge mechanism should be changed, after the fact, to yield the results that they view as appropriate, *i.e.*, to present what they claim would have been "the correct fuel surcharge that should have been applied."<sup>27</sup> Specifically, Cargill's witnesses assert that BNSF used the wrong "step-function" and also chose the wrong starting

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<sup>27</sup> Crowley/Mulholland VS at 18.

point at which to begin assessing a fuel surcharge. Cargill asks the Board to prescribe the BNSF fuel surcharge with the values they have calculated for the future. But that would be illogical because the values they have determined based on data for the period 2006-2010 would not produce a precise match between fuel surcharge revenues and costs for the period after 2010. Cargill's witnesses would not know what the correct fuel surcharge for any post-2010 period would be until they had data for the period that would allow them to calculate "correct" values to achieve a perfect match between revenues and costs.

Many of the flaws in Cargill's "overcharge" analysis are carried forward into Cargill's development of alternative values for the MBFSC. Moreover, as Mr. Fisher explains in his Verified Statement, there are additional serious flaws in Cargill's derivation of alternative inputs for BNSF's fuel surcharge mechanism that render their calculations contrived and unreliable. The Board would be embarking on a fool's errand if it were to emulate the Crowley/Mulholland approach to constructing a "reasonable" fuel surcharge on an after-the fact-basis.

**A. Cargill Fails to Demonstrate that BNSF Chose the Wrong Step-Function**

Mr. Fisher explains in his verified statement that the "step-function" is the mechanism by which BNSF's assumptions concerning fuel consumption are implemented in the fuel surcharge. The step function reflects the extent to which BNSF's fuel costs increase for each mile a carload is transported. BNSF's reasons for establishing a four-cent step function (which reflects an average fuel consumption assumption of 4 mpg) have been described above and in the Verified Statement of Mr. Anderson. Mr. Fisher confirms that an after-the-fact analysis using URCS costs shows that BNSF's 4 mpg assumption was reasonable. Table 2 from Mr. Fisher's Statement presents Mr. Fisher's calculation of MPGs for the traffic to which the MBFSC was applied using the corrected cost assumptions that he described above.

**Fisher Table 2  
FSC Miles per Gallon, MBFSC Traffic**

2006	2007	2008	2009	2010
4.04	3.99	3.96	3.98	4.07

Cargill nevertheless challenges BNSF’s step-function on the basis of a complicated regression analysis performed by Messrs. Crowley and Mulholland. Messrs. Crowley and Mulholland purport to calculate that the step-function “should have been” 5.18 cents for “Ag” traffic and 4.57 cents for “Other Freight.”<sup>28</sup> Mr. Fisher describes in detail the many defects in the Crowley/Mulholland regression analysis in his Verified Statement. These include:

- Lack of any basis on which to treat BNSF’s single MBFSC as two surcharges applicable to two groups of traffic;
- Attempting to calculate what the step function “should have been” in 2005 based on data that did not become available until much later;
- Using flawed data derived from the “overcharge” analysis as input for the regression;
- Failing to give effect to the Board’s safe harbor for use of the HDF price in fuel surcharges and collaterally attacking the validity of that safe harbor.

It is worth asking what Messrs. Crowley and Mulholland sought to achieve by pursuing their complicated regression approach to recalculating the step function. As Mr. Fisher explains, it is readily possible to calculate fuel consumption from the URCS data that Messrs. Crowley and Mulholland used for their “overcharge” analysis without pursuing the convoluted regression approach. In fact, Messrs. Crowley and Mulholland calculated BNSF fuel consumption rates from that data and even report the results of those calculations in their verified statement. Significantly, the fuel consumption they calculated – {        } mpg for “Ag” traffic and {        } mpg for “Other Freight,” or {        } on average for the traffic covered by the MBFSC – is

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<sup>28</sup> *Id.* at 19.

significantly closer to the 4 MPG reflected in BNSF's MBFSC than the result of Crowley/Mulholland's step function regressions.<sup>29</sup> And when the cost assumptions used to produce these MPG estimates are corrected, the results confirm BNSF's use of a 4 MPG step function, as shown in Table 2 above.

The divergence between the Crowley/Mulholland fuel consumption figures and their regression results is no accident. This is because their regression analysis is an obvious attempt to evade the effect of the Board's safe harbor ruling that railroads may not be penalized for using the HDF price in their fuel surcharges and they should not be penalized for the modest variation between HDF prices and internal fuel costs that would result from the use of the HDF index. As Mr. Fisher explains, and as discussed above with respect to application of the safe harbor to the "overcharge" analysis, Cargill contends that the HDF price cannot be used without a "consumption adjustment factor." The Crowley/Mulholland regression analysis is the tool by which they seek to build into the step function a "correction" for the variation between the HDF price and BNSF's internal fuel costs. Their step function produces results that differ from their own fuel consumption calculations precisely because they are not attempting to simply calculate fuel consumption with their regression. Instead, they are calculating a step function based on a fuel consumption that has been modified through the regression to incorporate the effect of variations between BNSF's internal fuel costs and HDF fuel prices.

In summary, Cargill's step function analysis does not reflect a rational measure of fuel consumption and the Board must reject it.

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<sup>29</sup> See Crowley/Mulholland VS at 27.

**B. Cargill Fails to Demonstrate that BNSF Chose the Wrong Starting Point**

Cargill also challenges BNSF's use of \$1.25 HDF as the starting point for the assessment of a fuel surcharge. Cargill claims that BNSF's internal fuel price of \$0.73 corresponded to an HDF price \$1.298 instead of \$1.25. Cargill therefore claims that BNSF should have used a starting point of \$1.298 HDF, not \$1.25. Cargill further argues that in setting the strike price for the MBFSC, BNSF should have increased the HDF starting point by one half step, or \$0.02.

Cargill's invitation to have the Board micromanage the mechanics of a fuel surcharge implementation by second-guessing BNSF's choice of a starting point for the MBFSC is inappropriate and misguided. The strike price or starting point of the fuel surcharge is not part of the nexus between the fuel surcharge mechanism and fuel consumption, which is the issue that the Board has identified as central to its review of fuel surcharges. A railroad should be able to choose for its own business reasons the point at which it wants to start assessing a fuel surcharge, so long as the surcharges assessed above that starting point have a reasonable nexus to the railroad's increasing cost of fuel. The proper starting point of the surcharge, in contrast to the step functions used in the surcharge mechanism, is a design element that is unrelated to the fuel consumption characteristics of the traffic to which the surcharge is being applied.

BNSF had to choose *some* starting point for the MBFSC. The Board encouraged railroads to use the HDF index as the basis for tracking the movement of fuel costs and conclusively presumed that the movement of fuel prices reflected in the HDF index reasonably reflects changes in BNSF's cost of fuel. Therefore, it was reasonable for BNSF to design the MBFSC using the HDF index as the basis for assessing the surcharge. Having chosen to use the HDF, BNSF had to choose an HDF starting point for assessing the surcharge. BNSF has explained its business reasons for selecting \$1.25 as the HDF starting point and has explained the basis for its conclusion that \$1.25 HDF roughly corresponded to BNSF's internal fuel price of

\$0.73. There is no reason for the Board to second-guess BNSF's decision on the proper starting point of the surcharge.

The Crowley/Mulholland discussion of the starting point issue is an extreme form of mumbo jumbo. Their development of a "statistical relationship" between the HDF strike price and internal BNSF cost using data from 2006-2010 is totally irrelevant to the question of whether BNSF's selection of \$1.25 was a reasonable element of FSC design at the time BNSF designed it. As Mr. Fisher explains, the "statistical relationship" that Crowley/Mulholland develop is based on the same regression Crowley/Mulholland used to support their claim for a "consumption adjustment factor" of { } to reflect variation between HDF and BNSF prices. They use the regression, calculated with data for 2006 through 2010, to argue that if BNSF was attempting to find a starting point that corresponded to an internal cost of \$0.73, it should have used \$1.298 instead of \$1.25.

Again, Cargill's analysis is deeply flawed. The relevant question is not what a post-hoc analysis performed years after the actual design of the fuel surcharge would indicate. BNSF did not have the data in 2005 to perform that analysis. The question is what the data available to BNSF showed at the time BNSF's MBFSC was designed and implemented. Mr. Anderson explains that BNSF's contemporaneous analysis of BNSF internal fuel cost and HDF prices established that the relationship between \$1.25 HDF and \$0.73 internal BNSF price was reasonable at the time BNSF chose to use a strike price of \$1.25 HDF. Anderson VS at 15.

Moreover, Cargill's analysis is another challenge to BNSF's reliance on the public HDF index as the basis for its surcharge design. Crowley/Mulholland claim that BNSF's starting point should be adjusted now based on changes that occurred between the HDF price and

BNSF's internal price over the past 5 years.<sup>30</sup> But the STB has said that railroads can use the HDF index as the basis for tracking cost changes, so there is no basis for arguing that BNSF should recalibrate the strike price in light of changes that occurred between 2006 and 2010 between the HDF index and BNSF's internal costs.

Crowley/Mulholland's proposed ½ step length adjustment or \$0.02 increase in the starting point is similarly flawed. The Crowley/Mulholland proposed half-step adjustment assumes a level of precision in comparing HDF prices to BNSF's internal fuel price that is unrealistic. Their adjustment assumes that it is possible to establish with precision the exact point at which the HDF index is equivalent to BNSF's internal fuel price of \$0.73. According to Crowley/Mulholland, when that exact point of equivalence is determined, it is then necessary to move one half-step up and begin changing the fuel surcharge. But their own analysis of the relationship between an internal BNSF price of \$0.73 and the corresponding HDF price shows that such a high level of precision is unrealistic. Their own HDF/BNSF price analysis produced three different HDF values for BNSF's internal fuel price of \$0.73 that differed by as much as {        } It is clearly inappropriate to require adjustments to BNSF's fuel surcharge mechanism based on an assumed level of precision in comparing HDF prices to BNSF's internal prices that does not exist.

BNSF had valid reasons for establishing a \$1.25 HDF strike price for the MBFSC. The Board should not second-guess reasonable choices for the starting point of a fuel surcharge.

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<sup>30</sup> Mr. Fisher shows that Crowley/Mulholland's use of post-hedged prices also substantially skewed the results of their regression analysis of HDF prices compared to BNSF's internal prices. As explained above, hedging is a financial risk management tool that should not be considered in evaluating BNSF's design of the fuel surcharge mechanism.

**VII. Cargill Has Submitted No Evidence On The Reasonableness of BNSF's Rebased Carload Fuel Surcharge That Was Implemented in 2011.**

Cargill defines the "liability period" of this case as "starting on April 19, 2008 and extending to the discovery cut-off date in this case, December 31, 2010." Cargill Op. at 39. Cargill's liability evidence focuses exclusively on BNSF's mileage-based fuel surcharge in effect during this "liability period." However, Cargill also claims that it will be seeking as damages "the additional amounts of unreasonable surcharges Cargill continues to incur on its regulated traffic subject to the ATI ['Assailed Tariff Item'] after December 31, 2010." *Id.* at 40-41. While it is premature to address damages issues in this phase of the proceeding, the Board can and should conclude that Cargill has no basis for seeking damages for surcharge payments that Cargill has made under BNSF's new carload surcharge implemented after December 31, 2010.

As discussed above in Section IV, BNSF implemented a new carload mileage-based fuel surcharge in 2011 that replaced the surcharge that had been in effect for carload traffic since 2006. The new carload surcharge has features that distinguish it from the MBFSC that was previously in effect. Most prominently, the new MBFSC has a higher strike price. Fuel surcharges are now assessed based on the level of the HDF fuel price index above \$2.50 rather than \$1.25. The effect of the new, "rebased" MBFSC is to significantly reduce the portion of a shipper's total rate that is paid as a fuel surcharge. In addition, the new MBFSC has a novel feature that no other railroad has adopted, namely a credit mechanism that provides the shipper with a deduction on its invoice when the HDF index drops below the new \$2.50 strike price.

Cargill presents no evidence at all about the new rebased fuel surcharge. Cargill defines the "Assailed Tariff Item" as including the new, rebased fuel surcharge. *See* Cargill Op. at 2, note 3. But Cargill's opening evidence, where a complainant must present its case in chief, is completely silent about the features of the new surcharge or the reasonableness of the new

surcharge design. While much of Cargill's opening evidence complains about BNSF's choice of the \$1.25 strike price under the old surcharge mechanism, Cargill does not say a single word about the new \$2.50 strike price. Nor does Cargill address the reasonableness of the new credit mechanism feature of the current carload MBFSC.

Cargill's failure to address BNSF's new mileage based fuel surcharge speaks volumes about the failure of Cargill's after-the-fact approach to satisfy the Board's unreasonable practice standards. Under Cargill's after-the-fact approach to assessing the reasonableness of a fuel surcharge, it is not possible to assess the reasonableness of the new MBFSC since there is no historical data to analyze. Just as Cargill did not attempt to demonstrate that the design elements of BNSF's original MBFSC were unreasonable when that fuel surcharge was designed, Cargill is not in a position under its approach to show the design elements of the new MBFSC to be unreasonable. Cargill's presentation exhibits the same fundamental failure of proof with regard to both the old and new versions of the MBFSC.

In short, there is no basis for finding BNSF's new carload MBFSC to be an unreasonable practice. Cargill chose not to submit any evidence on the reasonableness of the new surcharge mechanism. The Board cannot find BNSF's new rebased MBFSC to be an unreasonable practice in the absence of any evidence at all in Cargill's case-in-chief about the reasonableness of that new MBFSC, and Cargill cannot seek damages, even if this case proceeds to a damages phase, for fuel surcharge payments made under the new MBFSC.

### **VIII. Damages and Other Relief**

Because the Board bifurcated this proceeding, it is premature to talk about damages at this stage of the proceeding. But Cargill talks about its intent to pursue damages and even quantifies them. *See Crowley/Mulholland VS* at 34-35. Cargill also confirms what BNSF

suspected before the Board bifurcated this proceeding, namely that Cargill's damages claims would focus exclusively on the level of the fuel surcharge and that Cargill would seek damages as though this were a challenge to the reasonableness of a rate.<sup>31</sup> Thus, it is abundantly clear that Cargill would be heading toward a *Union Pacific* problem if the Board were to find that BNSF's MBFSC constitutes an unreasonable practice.

Cargill has also sought injunctive relief. But Cargill's injunction request makes no sense. Cargill asks the Board to order BNSF to modify the fuel surcharge that was in effect from 2006-2010 but Cargill ignores the fact that BNSF has already replaced that fuel surcharge with a modified surcharge mechanism. As discussed above, Cargill knew about the new MBFSC mechanism when it filed its opening evidence – indeed, Cargill indicated that it intended to seek damages for payments under the new surcharge – but Cargill said nothing about the reasonableness of the new MBFSC. For example, the new MBFSC has a rebased strike price at \$2.50 HDF. Cargill's request for injunctive relief asks the Board to order BNSF to establish a strike price at \$1.298 HDF. Cargill Op. at 40. But Cargill has made no effort to explain what, if anything, is wrong with the new strike price under the modified MBFSC.

The Board has previously addressed fuel surcharge practices on a prospective basis. In *Fuel Surcharges III*, the Board properly focused its prospective relief on the broad design of a surcharge mechanism. If the Board were to find here that BNSF mislabeled its mileage based fuel surcharge because the formula was designed to generate profits in addition to recovering incremental fuel costs, any injunctive relief the Board might order should be focused on eliminating the design flaws that caused BNSF's MBFSC to be something other than a fuel

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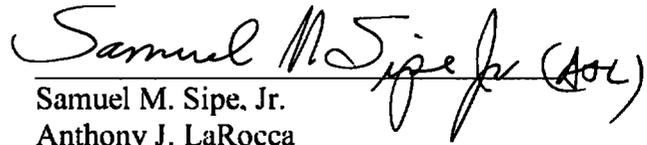
<sup>31</sup> Mr. Fisher notes that the average R/VC on the traffic for which Cargill says that it intends to seek overcharge damages is {            }, and that the {            } is below 180% R/VC. Fisher VS at 55.

surcharge mechanism. In formulating any injunctive relief, the Board would need to take care to avoid adopting the rigid prescriptive approach that Cargill advocates in deriving alternative values for BNSF's fuel surcharge formula. As noted above, Cargill's approach is the equivalent of a rate prescription, a form of injunctive relief that is forbidden by *Union Pacific* in an unreasonable practice case.

**IX. Conclusion**

For the reasons explained above, Cargill has failed to establish liability at the initial stage of this bifurcated proceeding, and its complaint should therefore be dismissed without further proceedings before the Board.

Respectfully submitted,



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October 24, 2011

**CERTIFICATE OF SERVICE**

I hereby certify that I have this 24th day of October, 2011, caused to be served copies of the above Reply Evidence and Argument of BNSF Railway Company by hand delivery upon counsel for Cargill, Incorporated, as follows:

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**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

<b>CARGILL, INCORPORATED</b>	)	
	)	
	)	
<b>Complainant,</b>	)	
	)	
<b>v.</b>	)	<b>Docket No. 42120</b>
	)	
<b>BNSF RAILWAY COMPANY</b>	)	
	)	
<b>Defendant.</b>	)	
	)	

**VERIFIED STATEMENT OF JOHN P. LANIGAN**

My name is John P. Lanigan. I am the Executive Vice President and Chief Marketing Officer of BNSF Railway Company (BNSF), a position I have held at BNSF since I joined the company in January 2003. I received an undergraduate degree from the United States Coast Guard Academy in 1977 and a Master of Business Administration from Baldwin-Wallace College in Ohio in 1989. After graduating from the U.S. Coast Guard Academy, I spent more than six years on active duty in the U.S. Coast Guard. I then spent sixteen years working at Schneider National, a trucking company, in various positions that included president of the trucking division and chief operating officer of the corporation. After that, I became president of a start-up software company called Logistics.com that was involved in optimization and decision support software for the trucking industry. I left Logistics.com to join BNSF.

In my position as Executive Vice President and Chief Marketing Officer for BNSF, I have had overall responsibility since 2003 for marketing BNSF's rail transportation services. My responsibilities have included decision-making authority regarding BNSF's fuel surcharges in general and the mileage-based fuel surcharge applied to carload traffic, including agricultural products (Ag), that is at issue in this proceeding.

I am submitting this verified statement in support of BNSF's Reply Evidence in this proceeding, in which Cargill has challenged BNSF's carload mileage-based fuel surcharge as an unreasonable practice. As I explain below, as Executive Vice President and Chief Marketing Officer, I was the person on BNSF's executive team that was principally responsible for establishing the design objectives for the mileage-based fuel surcharge that is at issue in this case and for making sure that those design objectives were properly implemented. I made recommendations regarding the mileage-based fuel surcharge to BNSF senior management, principally Tom Hund, BNSF's Chief Financial Officer and Matthew Rose, BNSF's Chief Executive Officer. Mr. Rose provided ultimate approval. Given the major impact of rising fuel costs on our company and the significance of a fuel surcharge, I had many discussions with other members of BNSF's senior management team about the proper approach to assessing a fuel surcharge. BNSF's decisions about the fuel surcharge were taken very seriously.

I am submitting this verified statement to explain to the Board that Cargill has incorrectly accused BNSF of attempting to use the mileage-based carload fuel surcharge as a profit center. Throughout the process of developing, implementing, and monitoring the carload fuel surcharge at issue in this case, BNSF's guiding principle was that the surcharge was intended to be a cost recovery mechanism and not a vehicle for increasing BNSF's profits. I also explain that BNSF has continuously strived to accommodate shipper concerns in our design and implementation of

the carload mileage-based fuel surcharge, from our decision to adopt a mileage-based surcharge before any other Class I railroad to our recent decision to modify the fuel surcharge mechanism by rebasing the strike price in light of a sustained period of continued high fuel prices.

**I. BNSF Was The First Class I Railroad to Adopt Mileage-Based Fuel Surcharges (MBFSC)**

When fuel prices became increasingly volatile in the early 2000s, BNSF, like many other railroads and other transportation companies such as trucks, used fuel surcharges to deal with the unpredictable fuel price changes and to recover some of our rapidly escalating fuel costs. The fuel surcharges assessed by BNSF in the early 2000s, which were in effect when I arrived at the company in January 2003, were based on a percentage of the rate paid by the shipper and were commonly referred to as “percent of rate” fuel surcharges. By July 2004, BNSF had three standard percent of rate fuel surcharges for carload traffic, intermodal traffic, and coal traffic. Other railroads also had percent of rate fuel surcharges at that time.

After I joined BNSF in 2003, I initiated a review of BNSF’s fuel surcharges to consider whether to change the surcharges from a percent of rate basis to a mileage basis. I was very familiar with mileage-based fuel surcharges from my work at Schneider National. In fact, I was a part of the core team at Schneider National that created and implemented a mileage-based fuel surcharge in 1991. The fuel surcharges assessed by trucking companies in the 1990s and early 2000s were typically based on mileage rather than a percentage of the rate.

Since fuel consumption is directly correlated with length of haul, I thought that mileage-based fuel surcharges would be a fair way of having our customers pay for the increased fuel costs incurred to handle their traffic in a period of sharply increasing fuel prices. Moreover, some of our customers had expressed concerns about the percent of rate fuel surcharges and had asked that we consider adopting mileage-based fuel surcharges as an alternative to percent of rate

surcharges. In January 2005, I also recall meeting with three shipper organizations, National Industrial Traffic League (also known as NITL), National Grain and Feed Association (also known as NGFA), and Forest Products Association of Canada, during which the shipper groups expressed a desire that BNSF assess a fuel surcharge based on mileage rather than a percent of the base rate. I informed them at the time that BNSF was considering a mileage-based fuel surcharge but had not yet made a final decision. I thought that adopting a mileage-based surcharge mechanism would be responsive to shippers' concerns about escalating fuel costs and the fairness of the surcharge mechanism used to assess those costs.

One of the challenges we faced in considering whether to implement mileage-based surcharges was that the rail industry had not used mileage-based fuel surcharges historically so neither rail carrier nor rail customer billing systems were designed to accommodate mileage-based fuel surcharges. Nevertheless, by 2004, shipper concerns about the existing percent of rate surcharges had increased substantially. So in the Fall of 2004, I asked the Fuel Surcharge Review Team, which included more than 15 employees from different divisions within the company, including Marketing Decision Support and Planning, Finance, Accounting, Tech Services, and BNSF's marketing business units, to make specific recommendations regarding the adoption of a mileage-based fuel surcharge program.

After studying the issue in detail, the Surcharge Review Team recognized that there would be major administrative difficulties in changing from percent of rate surcharges to mileage-based surcharges, but we decided that it was important to respond to shippers' concerns by adopting mileage-based surcharges that applied to as much of BNSF's traffic as possible. I discussed the Team recommendations and my conclusions with other BNSF senior management and there was a broad consensus that it would be appropriate for BNSF to respond to our

shippers by adopting mileage-based surcharges. Therefore, in March 2005, BNSF made a definitive decision to adopt mileage-based fuel surcharges and announced to the public that it would implement mileage-based fuel surcharges for all its local traffic and the BNSF portion of Rule 11 traffic beginning in 2006. BNSF intended to have one MBFSC apply to carload traffic, including agricultural products, and separate MBFSCs apply to coal and taconite traffic, as well as intermodal traffic. As I explain below, later in 2005 we decided to implement mileage-based fuel surcharges only for agricultural products and coal traffic effective 2006 as an accommodation to our carload customers in the Industrial Products group and our intermodal customers who needed more time to adjust to their own systems for a mileage-based fuel surcharge. BNSF was the first Class I railroad to adopt mileage-based fuel surcharges.

**II. BNSF Sought To Design A Carload Mileage-Based Surcharge That Was Simple, Easy to Administer, Fair, and Transparent**

Having decided to implement mileage-based surcharges, it was necessary to establish the design objectives for the surcharges. As a preliminary matter, I made it clear to all BNSF employees working on the design of the surcharge mechanism that the mileage-based fuel surcharges were intended to recover BNSF's incremental fuel costs and were not intended to be a profit center. *See, e.g.*, Exhibit 1 at 1; Exhibit 2 at 1; Exhibit 3 at 1; Exhibit 4 at 3-4. I personally informed BNSF employees involved in the design and later monitoring of the mileage-based fuel surcharges of this objective on numerous occasions. Once we started designing the carload mileage-based surcharge, there was never any doubt at BNSF as to this fundamental objective. *Id.*

I also set out three basic design criteria for the carload mileage-based fuel surcharge. First, we wanted a fuel surcharge mechanism that was simple and easy for us and our shippers to administer. Exhibit 5 at 5. The objective of simplicity and ease of administration was very

important in designing the new surcharge mechanism. BNSF has thousands of customers, ranging from large sophisticated firms to much smaller companies. BNSF wanted a fuel surcharge mechanism that would be easy for all of our shippers to understand and easy for us and our shippers to implement. Complexity in the design of a surcharge mechanism would be a recipe for contention with our shippers and would inevitably lead to disputes that BNSF wanted to avoid. Therefore, we did not want too many surcharge tables, which would only create confusion among shippers and make it difficult to administer the new fuel surcharges. We also wanted the tables to be straightforward and easy to understand, administer, and audit. We did not want to adopt tables that would have to be changed frequently, with the associated administrative complications.

Second, we wanted the surcharge to be fair to our shippers. *Id.* We were adopting mileage-based surcharges in response to shipper concerns that some shippers were paying more than their fair share of a railroad's increased fuel costs, so we wanted our new mileage-based surcharge to be more directly based on the fuel consumption characteristics of the trains used to provide service. To be fair to the customer, we wanted there to be a reasonably close linkage between the amount of the fuel surcharge and the fuel consumed by the shipments subject to the fuel surcharge table. We knew that we could not link the surcharge to fuel consumption with absolute precision since there are many variables affecting fuel consumption on individual movements and some uncertainties regarding the measurement of fuel consumption (both locomotive and non-locomotive (i.e. consumption by BNSF vehicles other than locomotives and in BNSF's systems operations) and fuel cost. However, we believed that we could establish a reasonable correlation between the level of fuel consumption on individual movements and the

increased cost of fuel by using a miles-per-gallon (MPG) fuel consumption estimate as a central design feature of our carload fuel surcharge.

Third, we wanted the new mileage-based fuel surcharges to be transparent so our customers could easily determine what their fuel surcharges would be for particular movements. *Id.* Therefore, we wanted to base the surcharge on a public fuel price index, and we ultimately decided to use the HDF index, {

} as Paul B. Anderson explains in his verified statement.

**III. BNSF Carefully Made Decisions About the Proper Design of the Surcharge to Implement BNSF's Design Objectives**

As I noted above, in late March 2005, BNSF announced that we would begin to assess fuel surcharges on a mileage basis effective January 2006. In that announcement, we stated that the mileage-based surcharges would be applied to BNSF's local and Rule 11 traffic. Anderson Exhibit 1 at 1.<sup>1</sup> BNSF did not plan to apply mileage-based fuel surcharges on interline traffic in 2006 since {

} We

provided the nine-month lead time before implementation of mileage-based fuel surcharges to give ourselves time to conduct the analyses that would be used in designing the surcharge mechanisms and to allow customers and ourselves adequate time to implement and test changes in internal systems that would be necessary to implement mileage-based fuel surcharges. *Id.* at 2.

In 2005, as the basic design work was being done on the surcharge mechanism, I was informed regularly about the progress being made to have mileage-based fuel surcharges in place on January 1, 2006. As Executive Vice President and Chief Marketing Officer, I was also

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<sup>1</sup> "Anderson Exhibit" refers to an exhibit to the Verified Statement of Paul B. Anderson.

personally involved in making final decisions regarding several design elements of the carload mileage-based fuel surcharge at issue in this case.

**Miles Per Gallon Assumption Based on Whole Number**

An important assumption used in creating the surcharge tables in a mileage-based surcharge is the rate at which fuel is consumed by the traffic that will be subject to the fuel surcharge. There was some discussion among those involved in designing the surcharge as to the level of precision we should use in estimating the MPGs of the carload traffic that would be subject to the fuel surcharge. Specifically, there was a question whether the MPG assumption that would be used to construct the tables should be based on a whole number or on a decimal point rounded to the nearest tenth. We decided that the MPG estimate should be expressed as a whole number. Mr. Paul B. Anderson, BNSF's Vice President, Marketing Support, explains in more detail in his verified statement the basis for this decision. In short, {

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**No Separate Ag Shuttle Mileage-Based Fuel Surcharge**

I was also involved in deciding whether BNSF should implement a separate fuel surcharge that would apply only to movements of agricultural commodities in shuttle trains. Most Ag freight is handled on merchandise trains that also carry non-Ag products. {

}<sup>2</sup>

After substantial internal discussion, I decided in consultation with employees in the Ag business unit that BNSF should adopt a single carload mileage-based fuel surcharge that applied to all carload traffic, including Ag shuttle traffic, other than coal, and that it would not be appropriate to create a separate surcharge for Ag shuttle traffic.<sup>3</sup> {

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<sup>2</sup> [D-303343]. Where BNSF cites a document that Cargill included in its Opening Statement, BNSF references the same citation used by Cargill in brackets “[”]. For the Board’s convenience, BNSF has included these materials on a separate CD containing work papers.

<sup>3</sup> [D-4129].



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After the fuel surcharge was implemented in 2006, the issue came up again from time to time whether to adopt a separate mileage-based fuel surcharge for Ag shuttle traffic using a somewhat higher MPG assumption than was used in the carload mileage-based fuel surcharge. I participated in and also concurred in the decisions that BNSF senior management reached after these subsequent discussions not to adopt a separate Ag shuttle surcharge mechanism. We reached these decisions after concluding that the reasons we originally had for making Ag shuttle trains subject to our carload table remained valid. I talk to Ag customers frequently and do not recall any Ag customer telling me that they would like BNSF to publish a separate MBFSC for Ag shuttle traffic.

**IV. During the Design and Subsequent Implementation of the Carload Mileage-Based Fuel Surcharge, BNSF Strived To Respond to Customer Concerns**

From our original decision to implement mileage-based surcharges to the specific decisions we made in designing and implementing the surcharge at issue in this case, BNSF has listened carefully to shipper input and has been responsive to our shippers' concerns, trying to

accommodate them where it was reasonable to do so. Following the March 2005 announcement of our decision to adopt mileage-based fuel surcharges, we solicited customer comments, including feedback from customers in all of our business units, to assist us in designing the proposed mileage-based fuel surcharge program. While some customers favored the change to mileage-based fuel surcharges, others expressed concerns, including a concern that it would require them to undertake a costly system redesign to process such fuel surcharges.<sup>4</sup> We also initiated a pilot program with volunteer customers to identify unforeseen issues and to eliminate surprises well before implementing the new system. Anderson Exhibit 6 at 2.<sup>5</sup>

In response to comments from our customers in 2005, we modified some aspects of our mileage-based fuel surcharge program. One important response to shipper concerns was that we decided in the fall of 2005 that the carload mileage-based fuel surcharge would apply to only agricultural products rather than all carload commodities when it was implemented in January 2006. We made this decision to accommodate our carload customers in the Industrial Products group who had indicated that they needed more time to make adjustments to their own information systems to accommodate the new program. Anderson Exhibit 3 at 1. Thus, in October 2005, we announced that we would implement mileage-based fuel surcharges for agricultural products and coal effective January 2006, and that we would implement mileage-based fuel surcharges at a later date for other traffic.

Also in response to customer comments, we changed the source of the mileage used in our carload mileage-based fuel surcharge. As Paul Anderson discusses in his verified statement, we initially announced in March 2005 that the surcharge would be assessed based on highway

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<sup>4</sup> BNSF\_CARGILL\_0072132 at 072138-072147 & 072150. The “BNSF\_CARGILL” and BNSF Rules Book 6100-A documents cited herein are included on a separate CD in a folder labeled “BNSF Reply-Workpapers.”

<sup>5</sup> See also BNSF\_CARGILL\_0039029 at 0039034.

miles as shown in the Household Goods Carriers' (HHG) Mileage. Anderson Exhibit 1 at 2. However, our agricultural products customers did not want us to use highway miles since BNSF's tariffs that applied to their traffic already included rail miles. Since our Ag customers preferred the use of rail miles, we modified the surcharge before implementing it in January 2006 so that the surcharge amounts would be determined using short rail miles consistent with BNSF's tariffs for the base rates. Anderson Exhibit 3 at 1.

After the carload mileage-based fuel surcharge went into effect in January 2006, we continued to listen to the feedback provided by our customers regarding the fuel surcharge mechanism. In response to a suggestion from agricultural shippers represented by the National Grain and Feed Association (NGFA), in 2006, we adopted group-based mileages for whole grain shipments to Pacific Northwest export destinations and Texas Gulf export facilities.<sup>6</sup>

By early 2008, as a result of the unexpected skyrocketing of fuel prices, fuel surcharges had become a large component of the total transportation price paid by our customers. Many of our customers began to express a preference for BNSF to "rebase" its mileage-based fuel surcharge, *i.e.* to set the strike price higher than \$1.25 HDF, and, thereby recover less of our fuel costs through the fuel surcharge mechanism.<sup>7</sup> We once again listened to our customers and sought to respond to their concerns. In the summer of 2008, BNSF announced a rebase of its carload mileage-based fuel surcharge that would increase the strike price from \$1.25 HDF to \$2.50 HDF effective January 15, 2009. Anderson Exhibit 25 at 1.

Soon after this announcement, however, the HDF fuel price unpredictably began to drop dramatically. Within a few months, the average HDF fuel price was getting close to the new \$2.50 HDF strike price that BNSF intended to put into effect in 2009 and we realized that the

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<sup>6</sup> BNSF\_CARGILL\_0001203-04; BNSF Rules Book 6100-A, Item 3375 F at 33.

<sup>7</sup> See, *e.g.*, BNSF\_CARGILL\_197750.

average HDF price could drop below the new rebased strike price of \$2.50 HDF. {

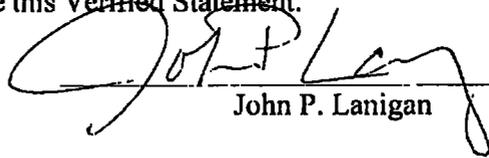
} we postponed our plan to rebase and left the strike price at \$1.25 HDF. Anderson Exhibit 26 at 1.

Fuel prices began to climb once more, and in July 2010, we announced that we would rebase the carload MBFSC and would increase the strike price from \$1.25 to \$2.50 effective January 2011. Anderson Exhibit 27 at 1. To generate customer goodwill, our rebased fuel surcharge now includes a credit mechanism to compensate customers if the HDF price falls below \$2.50 for an extended period. {

} As the only Class I railroad to adopt a credit mechanism, BNSF has demonstrated again that it is an industry leader willing to take the interests of its customers into account. By adopting this credit mechanism, BNSF has demonstrated that its mileage-based fuel surcharge program is intended to recover only BNSF's fuel incremental costs, and not to be a profit center.

I declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed on October 27, 2011

  
John P. Lanigan

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**THIS EXHIBIT IS A  
HIGHLY CONFIDENTIAL DOCUMENT**

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**THIS EXHIBIT IS A  
HIGHLY CONFIDENTIAL DOCUMENT**

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HIGHLY CONFIDENTIAL DOCUMENT**

Anderson

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

<b>CARGILL, INCORPORATED</b>	)	
	)	
<b>Complainant,</b>	)	
	)	
<b>v.</b>	)	<b>Docket No. 42120</b>
	)	
<b>BNSF RAILWAY COMPANY</b>	)	
	)	
<b>Defendant.</b>	)	
	)	

**VERIFIED STATEMENT OF PAUL B. ANDERSON**

My name is Paul B. Anderson. I have been employed by BNSF Railway Company (BNSF) – or its predecessor, the former Burlington Northern Railroad Company – for over 24 years, since July 1987. I have a Bachelor of Business Administration from Washington State University, a Bachelor of Arts in Economics from Eastern Washington University, and a Master of Business Administration from Eastern Washington University.

Since January 2006, I have been the Vice President, Marketing Support in the BNSF Marketing Department. Prior to my current position, I held positions in each of the Marketing business units – Coal, Agricultural Products, Industrial Products, and Consumer Products. I have also held a position in the BNSF Finance Department as Assistant Vice President, Financial Planning and Strategic Studies.

As Vice President of Marketing Support, I have been responsible for monitoring the effectiveness and performance of BNSF’s mileage-based fuel surcharge applied to carload traffic

that is at issue in this proceeding and for analyzing and implementing changes that were recently made to that fuel surcharge. I did not hold my current position in 2005 during the development of the carload mileage-based fuel surcharge; however, I was generally aware of BNSF's development of the fuel surcharge in 2005 and learned the details regarding that development when I became Vice President Marketing Support. I have supplemented my knowledge regarding BNSF's development of the carload mileage-based fuel surcharge through review of BNSF documents produced in this case and discussions with BNSF employees who were involved in that development.

I am submitting this verified statement in support of BNSF's Reply Evidence and Argument in this proceeding. The purpose of my verified statement is to describe for the Board how we designed the carload mileage-based fuel surcharge in 2005 based on general objectives established by BNSF's senior management. Those general objectives, including the principle that the fuel surcharge was to be used as a cost recovery mechanism and not a profit center, are described by BNSF's Chief Marketing Officer, John Lanigan, in his verified statement. I explain that BNSF's design decisions were appropriate based on the data available to us at that time, and how those decisions produced a fuel surcharge for carload traffic that was a simple, fair, and transparent mechanism for dealing with the extreme unpredictability and volatility of fuel prices. I also describe our efforts to monitor the performance of the fuel surcharge and to ensure that over time the basic objectives of BNSF senior management were being achieved. Finally, I describe our recent decision to modify the fuel surcharge by increasing the strike price from \$1.25 to \$2.50, which had the effect of making the fuel surcharge a much smaller portion of a shipper's overall freight charge.

**I. BNSF's Design of the Challenged Mileage-Based Fuel Surcharge in 2005**

To understand our mileage-based fuel surcharge design decisions, it is useful to recall the general environment in which BNSF was operating back in 2005. By early 2005, fuel prices had been highly volatile for several years. They had increased overall by 70% from 2002 through 2004, and there was continuing uncertainty regarding the level of fuel prices going forward. By early 2005, BNSF, like other rail carriers, had established fuel surcharges that were based on a percent of the base rate. While some shippers preferred percent of rate fuel surcharge mechanisms, other shippers complained about them. In early 2005, we decided that we would replace our percent of rate fuel surcharges with mileage-based fuel surcharges and began working to design the surcharge mechanisms. In March 2005, we announced to the public that we would be implementing a carload mileage-based fuel surcharge, as well as mileage-based fuel surcharge mechanisms for other types of traffic, beginning in 2006. Exhibit 1 at 1-2. But in our March 2005 announcement, we did not describe to the public the specific fuel surcharge mechanisms at that time, as we were still working internally on the surcharge. *See id.* In August 2005, we completed the basic fuel surcharge design effort and presented to the public the proposed carload mileage-based fuel surcharge mechanism, along with proposed mileage-based fuel surcharge mechanisms for unit coal, automotive, and intermodal traffic. Exhibit 2 at 2-3. As explained below, we then modified the carload surcharge mechanism in October 2005 as an accommodation to shippers that had provided feedback regarding certain design features of the surcharge set out in the August 2005 announcement. Exhibit 3 at 1.

During 2005, many BNSF employees worked for months to design the mileage-based fuel surcharge mechanisms that were to become effective in January 2006. Decisions had to be made regarding the components of the mileage-based fuel surcharges, including (a) the number

of mileage-based fuel surcharge mechanisms and the traffic to which each mechanism would apply, (b) the fuel index on which the fuel surcharge would be based, (c) the strike price at which the fuel surcharge would begin to be assessed, (d) the mileage source that would be used to assess the fuel surcharge, and (e) the miles per gallon (MPG) assumption incorporated into each mechanism.

The BNSF employees involved in the development of the mileage-based fuel surcharge mechanisms were guided by the objectives established by BNSF's senior management, including Chief Executive Officer, Matt Rose, and Chief Marketing Officer, John Lanigan. Those objectives are described by Mr. Lanigan in his verified statement. As explained by Mr. Lanigan, the surcharge mechanisms were intended to recover BNSF's incremental fuel costs, and not to be a profit center. Lanigan Exhibit 1 at 1; Lanigan Exhibit 2 at 1; Lanigan Exhibit 3 at 1; Lanigan Exhibit 4 at 3-4.<sup>1</sup> The BNSF employees developing the surcharge mechanism were instructed that the mileage-based fuel surcharge was supposed to be simple, fair, and transparent. Lanigan Exhibit 5 at 5. Since the surcharge would be based on mileage, the surcharge was supposed to recover costs through a charge that would be based on the assumed fuel consumption characteristics of the traffic that would be subject to the particular fuel surcharge.

**Table Structure: Traffic Subject to Carload Mileage-Based Fuel Surcharge**

Mr. Lanigan discusses the importance of BNSF's objectives of simplicity and ease of administration in the design of the new surcharge mechanism. Consistent with its simplicity objective, we decided in early 2005 to develop a single mileage-based fuel surcharge table structure that would apply to all carload traffic, including agricultural products and industrial products, other than unit-train coal and taconite. In the March 2005 announcement of our

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<sup>1</sup> "Lanigan Exhibit" refers to an exhibit to the Verified Statement of John P. Lanigan.

decision to implement mileage-based fuel surcharges, we explained that we intended to establish a mileage-based fuel surcharge table that would be applied to carload traffic, including agricultural products and industrial products other than unit-train coal and taconite. Exhibit 1 at 2. In its opening evidence, Cargill treats the carload fuel surcharge as two surcharges that apply separately to two traffic groups – agricultural products (Ag) and other freight. However, in developing the fuel surcharge mechanisms in 2005, we never designed separate mileage-based fuel surcharge tables for Ag traffic and other freight. We designed one carload fuel surcharge that was originally intended to apply to all carload traffic, except unit-train coal and taconite traffic. As I discuss later, we gave some consideration to creating a separate mileage-based fuel surcharge mechanism that would apply to Ag shuttle traffic, a subset of Ag traffic, but we did not consider designing a separate table for all Ag traffic.

We decided that a single mileage-based fuel surcharge should apply to carload traffic, including agricultural products, because {

}

Thus, in August 2005, we published the carload mileage-based fuel surcharge mechanism as a single fuel surcharge table for carload traffic, including agricultural products and industrial products other than unit-train coal and taconite. *See Exhibit 2 at 2.*

**Miles Per Gallon (MPG) Assumption**

In designing the carload mileage-based fuel surcharge mechanism, we had to decide what miles per gallon (or MPG) assumption would be incorporated into the fuel surcharge mechanism. We wanted the surcharge mechanism to be directly related to average amount of fuel consumed by the traffic that would be subject to the fuel surcharge. Since a mileage-based fuel surcharge would assess the charge based on the number of miles associated with a particular movement, we needed a rough estimate of the miles per gallon that would be achieved by trains handling the freight subject to the surcharge. The MPG assumption is an estimate of the average amount of fuel consumed on a mileage basis by the traffic subject to the fuel surcharge.

The MPG assumption in the surcharge mechanism is important in determining the proper rate at which the cent-per-mile charge would increase as the price of fuel increases. I will refer to this as the “step function” of the surcharge, a term that I understand Cargill has used in describing the fuel surcharge mechanism. The step function in a fuel surcharge based on a 4 MPG assumption would be \$0.01 per mile for every \$0.04 per gallon increase in the fuel index. In other words, if the traffic subject to the mileage-based fuel surcharge is estimated to consume fuel at a rate of four MPG, the mileage-based fuel surcharge would have a step function of \$0.01 per mile for every \$0.04 per gallon increase in the fuel index.

An example may help illustrate this relationship between the MPG of a traffic group and the step function for a mileage-based fuel surcharge for that traffic group. If trains handling carload traffic consume fuel at a rate of 4 MPG, then about 100 gallons of fuel would be

consumed on a 400 mile movement (4 MPG x 100 gallons = 400 miles). At \$1.00 per gallon, the cost of fuel consumed on this 400 mile trip would be \$100 ( $\$1.00 \times 100 \text{ gallons} = \$100$ ). If fuel prices increased by \$0.04 per gallon to become \$1.04, then the cost of fuel on this 400-mile movement would increase by \$4 ( $\$1.04 \times 100 \text{ gallons} = \$104$ ). A charge of \$0.01 per mile for every \$0.04 per gallon increase in fuel prices would ensure coverage of the additional fuel cost. In this example, a \$0.01 per mile charge times 400 miles equals the \$4 increase in fuel costs.

For traffic that achieves 4 MPG, the \$0.01 per mile charge for every \$0.04 per gallon fuel cost is appropriate regardless of the number of miles of the movement. Assuming the same fuel consumption rate of 4 MPG, a train moving 200 miles would consume 50 gallons (4 MPG x 50 gallons = 200 miles). The incremental fuel cost for that movement would be \$2 if fuel prices increase \$0.04 per gallon from \$1.00 per gallon to \$1.04 per gallon ( $\$0.04 \times 50 \text{ gallons} = \$2.00$ ). The same charge of \$0.01 per mile for every \$0.04 increase in fuel price would cover the incremental fuel cost associated with the 200-mile movement. In this second example, a \$0.01 per mile charge times 200 miles equals the \$2 increase in fuel cost.

The MPG assumption used in designing the carload fuel surcharge table at issue here resulted from multiple decisions. We had to decide whether the estimated MPG assumption should be expressed as an integer (rounded to a whole number) or a fraction carried out to a decimal point. We also had to select the source of the miles that would be used to estimate the MPGs for the traffic covered by the surcharge and to assess the amount of the fuel surcharge (e.g., highway or rail miles).

**MPG Assumption: Whole Number or Decimals**

The gallons used in the MPG estimate came from {

}

Therefore, an important question for us was how refined we wanted the MPG assumption in the fuel surcharge mechanism to be. For example, if the calculation resulted in an estimated MPG at 4.3 or 3.8, would we want to construct a fuel surcharge mechanism at the decimal level or at the level of a rounded integer, here 4 MPG?

We decided early on to use a whole number—and not a decimal point—as our estimate for the MPGs for the traffic group covered by the carload table. While we wanted the mileage-based fuel surcharge to increase proportionately to increased consumption of fuel, we did not want to adopt a MPG assumption that suggested a level of precision in tracking fuel consumption that simply did not exist. Absolute precision could not be achieved in an average MPG estimate.

{

}

We also knew that from year to year (or quarter to quarter) actual fuel consumption and the MPG estimates derived from such consumption will vary somewhat based on the volume of traffic and the mix of traffic in the period at issue. {

}

The question whether to use a whole-number or decimal-based estimate of MPGs was discussed internally among BNSF's staff from time to time during the design period and afterward, while we monitored the performance of the surcharge. But we always returned to the conclusion that a simple, easy to administer surcharge mechanism should be based on a whole-number estimate of fuel consumption, particularly given the less than perfect level of precision with which we could estimate the average MPGs associated with a particular traffic group.

**MPG Assumption: Mileage Source (Highway Miles vs. Rail Miles)**

For purposes both of developing MPG estimates and applying the mileage-based fuel surcharge to particular movements, we needed to determine the source of miles that would be

used to specify the distance traveled on particular movements. We had several possible mileage sources to choose from. We could use actual BNSF miles traveled, including any miles associated with circuitous routing or rerouting traffic for operational reasons. Actual rail miles are referred to as { } miles in BNSF's analyses. Exhibit 4 at 1, 3. Alternatively, we could use the shortest possible rail miles between origin and destination, and thereby exclude miles associated with reroutes from the fuel surcharge calculation even though the traffic actually moved those additional miles in some instances. Rail shortest miles are referred to as { } miles.<sup>2</sup> Another potential source of miles was highway miles between origin and destination, which are typically shorter than shortest rail miles and actual rail miles. Exhibit 4 at 1-3. Highway rail miles were familiar to many rail shippers who also ship some of their freight by truck. Highway miles are referred to as { } *Id.*

To develop a fuel surcharge mechanism that generated revenues in proportion to our incremental fuel costs, it was important that the mileage source used to assess the fuel surcharge be the same as the mileage source used to generate the MPG estimate incorporated into the fuel surcharge. If the MPG estimate and the fuel surcharge assessments were not based on the same mileage source, there would be a disconnect between the fuel surcharge assessed and BNSF's incremental fuel costs. For example, if the surcharge was assessed based on shorter highway miles but the fuel surcharge was designed based on a MPG estimated using the longer actual rail miles traveled, the resulting surcharge revenue would be substantially less than the incremental fuel costs sought to be recovered by the surcharge.

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<sup>2</sup> BNSF\_CARGILL\_0038328 at 0038330. The "BNSF\_CARGILL" documents, Exhibit 5 Work Papers, HDF Prices from U.S. Energy Information Administration ("EIA") website, and "MPG Estimate Response" cited herein are included on a separate CD in a folder labeled "BNSF Reply – Work Papers."

Again a simple example should help illustrate this point. Assume a train consumes 100 gallons of fuel in travelling from Point A to Point B. The published highway miles from Point A to Point B are 400 miles. The shortest possible rail miles between Point A and Point B are 430 miles. The actual rail miles travelled from Point A to Point B are 500 miles. The MPG for the trip from Point A to Point B is 4 MPG using highway miles (400 miles divided by 100 gallons = 4 mpg); 4.3 MPG using shortest possible rail miles highway miles (430 miles divided by 100 gallons = 4.3 MPG); and 5 MPG using actual rail miles (500 miles divided by 100 gallons = 5 MPG). Under this example, if BNSF designed the fuel surcharge based on the MPG estimate for actual rail miles (5 MPG estimate) but assessed the fuel surcharge based on highway miles (4 MPG estimate), it would not recover its incremental fuel costs.

To illustrate, assume that the price of fuel increases \$0.20 per gallon, which increases BNSF's costs by \$20.00 (\$0.20 times 100 gallons) for the movement from Point A to Point B. If the surcharge were designed based on a 5 MPG estimate, *i.e.*, using actual rail miles, the amount of the surcharge would be \$0.01 per mile for every \$0.05 per gallon increase in the price of fuel. (The step function in a 5 MPG-based table would be \$0.01 per mile for every \$0.05 per gallon increase.) If the surcharge was then assessed on the basis of actual rail miles (500), consistent with the MPG assumption in the design of the table, the fuel surcharge would be \$0.04 per mile times 500 miles, or equal to the \$20.00 increase in costs. However, if the surcharge was assessed on the basis of highway miles – 400 – the fuel surcharge would be \$0.04 per mile times 400 miles, producing fuel surcharge revenue of only \$16.00.

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}

We originally selected highway miles for our carload mileage-based fuel surcharge table, using the Household Goods Carriers' (HHG) Mileage Guide published by Rand McNally.

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<sup>4</sup>}

Using highway miles, in June 2005 we estimated an average { } MPG based on 2004 data for traffic that would move under the carload MBFSC (loaded carload, unit grain, and carload revenue empty traffic). Exhibit 5 at 1; Exhibit 6 at 3. Shortly afterward, we settled on a fuel surcharge mechanism for carload traffic that would be based on an assumption that the traffic covered by the fuel surcharge achieved 4 MPG, { } MPG estimate generated using highway miles. In August 2005, as I noted above, we published our carload mileage-based fuel surcharge. The surcharge had a step function based on a 4 MPG assumption (\$0.01 per mile for every \$0.04 change in fuel price), and we stated that we would assess the fuel surcharge using highway miles, consistent with the basis for the underlying MPG estimate.

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<sup>3</sup> BNSF\_CARGILL\_0171233.

<sup>4</sup> BNSF\_CARGILL\_0072723 at 0072727; BNSF\_CARGILL\_0067561 at 0067561.

In its opening evidence, Cargill cites to BNSF documents {

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}

**Treatment of Ag Shuttles**

As I noted before, we did not consider separate fuel surcharge tables for Ag and other carload freight, but we did consider whether to have a separate mileage-based fuel surcharge table for Ag shuttle traffic. The specific issue we addressed was whether the surcharge would apply to all carload traffic, including Ag shuttle trains, other than unit-train coal and taconite, or whether the carload surcharge would exclude Ag shuttle traffic, which would be subject to its own separate fuel surcharge. {

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<sup>5</sup> I respond to Cargill in the work paper entitled “MPG Estimate Response.”

<sup>6</sup> [D-303343]. Where BNSF cites a document that Cargill included in its Opening Statement, BNSF references the same citation used by Cargill in brackets “[”. For the Board’s convenience, BNSF has included these materials on a separate CD containing work papers.

John Lanigan and BNSF employees from the Agricultural Products marketing unit ultimately decided to apply the carload mileage-based fuel surcharge to Ag shuttle traffic and not to create a separate surcharge for Ag shuttle traffic for several reasons. As Mr. Lanigan explains in more detail, {

7}

**Choice Of Fuel Index**

We selected the Highway Diesel Fuel (HDF) index as the fuel cost index that would be used to determine how much fuel prices changed over time. As described above, the mileage-based fuel surcharge was calculated based on a cent per mile charge that was determined based on the increase in fuel price as specified by a fuel price index. {

} The Surface Transportation Board (STB) later endorsed the use of this index in rail fuel surcharges, noting the close correlation between the HDF index and rail fuel costs. Indeed, the HDF index continued to be very highly correlated to

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<sup>7</sup> [D-4129].

BNSF's own internal fuel costs after we implemented the carload mileage-based fuel surcharge in 2006.<sup>8</sup>

**Choice of Strike Price**

We also had to select a “strike price” or starting point for its mileage-based fuel surcharge mechanism. A fuel surcharge would only be assessed when the price in the fuel cost index incorporated into the mileage-based fuel surcharge reached or exceeded a particular amount, which we referred to as the strike price. In 2005, we selected \$1.25 per gallon HDF as the strike price for the carload mileage-based fuel surcharge, meaning that a fuel surcharge would only be assessed if the average monthly HDF fuel price equaled or exceeded \$1.25. We selected \$1.25 HDF as the strike price because {

<sup>9</sup>} In 2004-

2005, we concluded that the \$1.25 HDF strike price roughly corresponded to an internal fuel price of \$0.73 using a regression analysis that looked at BNSF's historical fuel cost and the average historical HDF price. Exhibit 8 at 1.<sup>10</sup> {

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<sup>8</sup> BNSF\_CARGILL\_0083311 at 0083320.

<sup>9</sup> BNSF\_CARGILL\_0144269 at 0144276.

<sup>10</sup> BNSF\_CARGILL\_0307566 at 0307566.

}

**Two-Month Lag**

We also designed the carload mileage-based fuel surcharge so that the surcharge would be assessed monthly and based on the average monthly HDF price from two months earlier. For example, the March mileage-based fuel surcharge would be based on the average HDF price from January of that year. We decided to incorporate this two month lag into our carload mileage-based fuel surcharge because {

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**II. Design Changes Based on Shipper Comments Prior to Implementation**

We completed the basic work on the design of the mileage-based fuel surcharge in the summer of 2005 and presented the new surcharge tables to the public in August 2005. After

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<sup>11</sup> HDF Prices from EIA Website.

publishing our proposed mileage-based fuel surcharge table for carload traffic in August 2005, we received customer feedback that caused us to modify the fuel surcharge in two respects before we implemented it.

First, we decided to implement the carload fuel surcharge only for BNSF's agricultural freight. As I explained above, we designed the surcharge to apply to all carload traffic other than unit-train coal and taconite. But after we announced the new surcharge program, our Industrial Products customers (our other carload customers) told us that they needed more time to adjust their internal systems to accommodate the new mileage-based fuel surcharge program. Exhibit 3 at 1. Mr. Lanigan explains more about this in his verified statement.

Second, we decided to change the mileage source used to assess the mileage-based fuel surcharge. As I explained earlier, we initially decided to use highway miles because {  
} But after we announced our decision to use highway miles, our Ag customers told us that they opposed the use of highway miles in the fuel surcharge because BNSF's tariffs already used rail miles, and using highway miles in the mileage-based fuel surcharge would create information systems issues for them.<sup>12</sup>

To accommodate our customers, in October 2005 we announced that we would implement the new carload mileage-based fuel surcharge only for our Ag shippers and that we would use rail miles rather than highway miles in assessing the amount of the fuel surcharge after confirming that we did not need to change the carload table MPG assumption as a result of switching to rail miles. Exhibit 3 at 1. However, we also had to decide which type of rail miles we would use. As I noted above, we had two basic rail mileage sources – actual miles (also

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<sup>12</sup> BNSF\_CARGILL\_0032445 at 0032446; BNSF\_CARGILL\_0001203 at 0001204.

known as { } miles) or shortest rail miles (also known as { } miles). Shortest rail miles reflect the most direct rail route between a particular origin and destination, and they are also the basis on which tariff rates are generally calculated. In contrast, actual rail miles reflect the actual route travelled and tend to be longer than shortest route miles because BNSF has to route traffic over a longer route at times for operational reasons (*i.e.*, weather, maintenance activities, etc.).

We decided to use shortest rail miles in our carload mileage-based fuel surcharge because {

}

As I explained above, there is a relationship between the source of miles used to assess the fuel surcharge and the MPG assumption used to determine the step function in the fuel surcharge table. We knew that the change from highway to rail miles, a change driven by the shippers' preference for rail miles, could have an impact on the MPG assumption underlying the fuel surcharge table. We looked at the MPGs using rail miles to confirm that it was still

appropriate to base the step function of the table on a 4 MPG fuel consumption assumption.<sup>13</sup>

{

} we were comfortable that the 4 MPG assumption that we

had previously selected for our carload mileage-based fuel surcharge remained appropriate.

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<sup>13</sup> BNSF\_CARGILL\_0072132 at 0072133.

**Carload Mileage-Based Fuel Surcharge Adopted By BNSF Effective January 2006**

To summarize, on January 1, 2006, we adopted a carload mileage-based fuel surcharge that would be applied first to agricultural products with the following general components (Exhibit 10 at 2-3):

- A single mileage-based fuel surcharge was applied to all agricultural products traffic with the intent to apply it later to other carload traffic other than unit-train coal and taconite.
- The fuel surcharge was based on the public HDF fuel index.
- The fuel surcharge for the current month was based on the monthly average HDF fuel cost from two months earlier.
- The strike price was set at \$1.25 HDF --when the average HDF fuel cost exceeded the strike price of \$1.25 per gallon, a fuel surcharge was imposed. At \$1.25 HDF, the fuel surcharge was \$0.01 per mile.
- A four miles per gallon assumption was the basis for the step function in the surcharge mechanism. Thus, for every \$0.04 per gallon increase in the monthly average HDF cost, the mileage-based fuel surcharge increased by \$0.01 per mile.
- Mileage calculations were based on shortest rail miles for the movement as posted on BNSF's website in the BNSF Mileage Inquiry Tool (BNSF Mileage Tariff – 6003).

By implementing this mileage-based fuel surcharge, BNSF achieved its goals of transparency and simplicity because any customer could calculate its mileage-based fuel surcharge for a particular movement in four steps, which BNSF described in presentations to its customers.

Exhibit 11 at 3-6.

**III. BNSF's Monitoring of the Carload Mileage-Based Fuel Surcharge After It Took Effect In January 2006**

Following our adoption of the carload mileage-based fuel surcharge, we began to monitor the surcharge to get a general sense of whether it was achieving the objective of senior

management that the surcharge operate as a cost recovery mechanism and not as a profit center. It was difficult to get a clear picture of how the fuel surcharge was performing, however, in light of the dramatic volatility that continued in fuel markets. Fuel prices rose by about 90% from January 2006 (\$2.47 average HDF price) to July 2008 when the average HDF price reached \$4.70 per gallon. Over the next nine months fuel prices dropped dramatically by almost 60% to a low of \$2.09 per gallon average HDF in March 2009. Thereafter, fuel prices bounced up and down from month to month but the overall trend was upward. By December 2009 the average HDF price was \$2.75 and by December 2010, the average HDF price was \$3.24.<sup>14</sup>

The uncertainty created by fuel price volatility was exacerbated by the overall dislocations in the economy that began in the fall of 2008. With the onset of the Great Recession, traffic volumes decreased sharply. The change in traffic had a significant impact on the operating characteristics of trains across our network, and therefore affected fuel consumption. We expected these changes to be of relatively short duration as the economy improved, but it was obviously difficult to predict when that would occur.

The volatility in fuel prices, particularly beginning in 2008, had a significant impact on the analyses we were carrying out of the surcharge performance. Among other things, the volatile fuel prices affected the differences between the price that we pay for fuel and the HDF index, which is based on retail fuel prices. While BNSF's internal fuel price tracked the HDF index very well, there were differences from time to time in the "spread" between the two prices. As I explain below, these differences in the spread, which BNSF could not predict, made it difficult to assess the performance of the surcharge mechanism except on a fairly general level.

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<sup>14</sup> HDF Prices from EIA Website.

While these factors made it difficult to draw firm conclusions from the data that we were collecting, we carried out regular analyses of the carload mileage-based fuel surcharge, and concluded after hard study and evaluation that our carload mileage-based fuel surcharge was on the right track.

**Annual Review of MPG Assumption**

As I explained above, the assumption as to average amount of fuel consumed by the traffic to be covered by the surcharge was an important element in determining the step function of the surcharge, *i.e.*, how much the cents per mile charge in the surcharge would increase with increases in fuel price. After implementing the surcharge in 2006, we monitored MPGs on an annual basis to confirm that the 4 MPG assumption underlying the carload table continued to be an appropriate assumption. The results of those annual MPG reviews are summarized in the Table below and confirmed to us that it was appropriate to continue to incorporate a 4 MPG assumption into our carload MBFSC. The sources of the MPG figures in the chart are discussed below and in Exhibit 5.

**BNSF's Annual MPG Monitoring  
of the Carload Mileage-Based Fuel Surcharge**

<b>Analysis Date*</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Carload MPG</b>	{ }	{ }	{ }	{ }	{ }

\* Each analysis used the previous year's data.

2006 MPG Review: {

}

2007 MPG Review: {

}

2008 MPG Review: {

}

2009 MPG Review: {

}

2010 MPG Review: {

}

Cargill cites to some MPG estimates prepared by us {

17

}

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<sup>15</sup> BNSF\_CARGILL\_0299860 at 0299863, 0299865.

<sup>16</sup> [D-334284 at BNSF\_CARGILL\_0334290.]

<sup>17</sup> MPG Estimate Response.

**Other Monitoring Events**

We carried out other monitoring activities after the carload mileage-based fuel surcharge became effective in 2006.

**Validation of Fuel Consumption Assumptions**

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<sup>18</sup> [D-27725]; BNSF\_CARGILL\_0046869 at 0046872.

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<sup>19</sup> [D-46868 at BNSF\_CARGILL\_0046874].

<sup>20</sup> [D-46868 at BNSF\_CARGILL\_0046880].

<sup>21</sup> [D-46868 at BNSF\_CARGILL\_0046881.]

**Fuel Cost Recovery Analyses**

Our internal monitoring efforts also included periodic analyses of how well our fuel surcharges appeared to be recovering our incremental fuel costs. {

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<sup>22</sup> BNSF\_CARGILL\_0083308 at 0083308; BNSF\_CARGILL\_0333221.

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<sup>23</sup> BNSF\_CARGILL\_0083308 at 0083308.

<sup>24</sup> BNSF\_CARGILL\_0082832 at 0082832.

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<sup>25</sup> BNSF\_CARGILL\_0345729 at 0345733.

**Changes to Carload Fuel Surcharge Post-Implementation**

Subsequent to the implementation of the carload fuel surcharge in January 2006, we considered making, and, ultimately made, some changes to the carload mileage-based fuel surcharge which I discuss below.

**In 2007, BNSF Expands Coverage of Carload MBFSC to Other Carload Traffic**

A few months after we implemented the carload MBFSC, the STB announced that it would hold a public hearing in May 2006 regarding the railroads' calculation of fuel surcharges in light of concerns expressed by the shipper community about fuel surcharges calculated based upon a percent of the rate. In August 2006, the Board issued a decision proposing several measures relating to rail fuel surcharge practices and made it clear that fuel surcharges must be related to the fuel consumption characteristics of the traffic to which it would be applied, either based on mileage alone or weight and mileage. After reviewing the STB's decision, we concluded that { ) Exhibit 22 at 3.

After the STB issued a January 2007 decision finding that percent of rate fuel surcharges were an unreasonable practice, we began to apply the mileage-based fuel surcharge that had been assessed on agricultural products since January 2006 to other types of regulated carload traffic as well. As I explained above, we had developed this mileage-based fuel surcharge as a general carload fuel surcharge back in 2005 and had intended to apply it to carload traffic generally when the information systems of carload customers could accommodate a mileage-based fuel surcharge. Thus, in April 2007, after the Board issued its decision requiring that railroads apply a fuel consumption-based surcharge to all regulated traffic, we extended the same mileage-based

fuel surcharge that we were applying to agricultural products to other carload traffic, as originally intended. Exhibit 1 at 2; Exhibit 3 at 1; Exhibit 23 at 2 .

This carload MBFSC is published as Item 3375, section B in BNSF's Rules Book 6100. Exhibit 23 at 2. BNSF publishes on its website a MBFSC table for Ag traffic and an identical MBFSC table for IP traffic (referred to as "All Other Freight") to make it easy for shippers of different commodities to look up their applicable fuel surcharges. The tables on the website indicate that the source for each of them is the carload MBFSC published as Item 3375, section B in BNSF's Rules Book 6100.

#### **Reconsideration of Separate Ag Shuttle Table**

After implementation, we again considered whether to remove Ag shuttle trains from the carload mileage-based fuel surcharge table and create a separate fuel surcharge for Ag shuttle traffic. For the same reasons that we decided not to create a separate Ag shuttle table back in 2005, which are discussed in Mr. Lanigan's verified statement, BNSF senior management again decided not to create a separate Ag shuttle table in 2008.<sup>26</sup>

#### **Rebasing**

In 2008, after the carload MBFSC had been in effect for two years, we were concerned about the continued increase in fuel prices and therefore the continued increase in the amount of the fuel surcharge even though our review of the fuel surcharge mechanism to date had confirmed the reasonableness of the basic design elements of the surcharge. By early 2008, HDF fuel prices had increased dramatically by 30% in 2007 and were projected to increase by another 22% in 2008. Exhibit 24 at 2-3. Due to the steep increase in fuel prices, our fuel surcharge was becoming a more and more significant portion of the total transportation cost paid by its

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<sup>26</sup> BNSF\_CARGILL\_240268 at 240268.

customers. In early 2008 we therefore began considering whether to “rebase” our carload mileage-based fuel surcharge, *i.e.* whether to set the strike price higher than \$1.25 HDF and, thereby, recover less of our fuel costs through the fuel surcharge and more through the base rate. Exhibit 24 at 3. Many of our customers expressed a preference for a rebased mileage-based fuel surcharge that set a higher strike price and recovered more of the fuel costs in the base rate.<sup>27</sup>

{

}

In the summer of 2008, we decided to rebase our carload mileage-based fuel surcharge by increasing the HDF strike price from \$1.25 per gallon to \$2.50 per gallon. We set the new strike at \$2.50 per gallon HDF because {

<sup>29</sup>}

In early August 2008, we announced to customers that we would rebase our carload mileage-based fuel surcharge so that the strike price would increase to \$2.50 HDF effective Jan. 15, 2009. Exhibit 25 at 1. However, soon thereafter the price of fuel unexpectedly and dramatically dropped to levels that were much lower than had been projected. The \$4.70

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<sup>27</sup> See, e.g., BNSF\_CARGILL\_0197750 at 0197750.

<sup>28</sup> BNSF\_CARGILL\_0249651 at 0249651; BNSF\_CARGILL\_0191948 at 191971.

<sup>29</sup> BNSF\_CARGILL\_0191948 at 0191954.

average HDF price in July 2008 had dropped to \$4.30 in August 2008 and to \$3.58 in October 2008.<sup>30</sup>

Given these swift, significant and unexpected declines in the price of fuel, we realized that the average HDF price could drop below the proposed new rebased strike price of \$2.50 HDF. {

} Consequently, we decided to postpone the rebase of the strike price to \$2.50 HDF and informed our customers of this decision in early December 2008. Exhibit 26 at 1-2. We explained that we would continue to monitor the state of the fuel markets and send an update regarding rebasing to our customers later in time. *Id.* at 2.

In 2010 the economy had stabilized somewhat and the average monthly HDF fuel prices had been above \$2.50 per gallon since the middle of 2009 and we expected the average monthly HDF price to remain above \$2.50 HDF. Consequently, in July 2010, we announced that effective January 2011 we were implementing the rebased carload mileage-based fuel surcharge with a \$2.50 strike price that we had put on hold in late 2008 when fuel prices declined sharply and the economy crashed. Exhibit 27 at 1. The rebase occurred six months after the announcement because we needed the six months to calculate the rebased rates and then complete the manual process of incorporating the rebased rates into our system.<sup>31</sup>

The rebased fuel surcharge also contained a credit mechanism so that if the average HDF price fell below the strike price, we would compensate the customer for fuel cost decreases below \$2.50 per gallon HDF based on the same step function (*i.e.*, one cent per mile reduction

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<sup>30</sup> HDF Prices from EIA Website.

<sup>31</sup> BNSF\_CARGILL\_0194563; BNSF\_CARGILL\_0333254 at 0333255.

for every \$0.04 decline in HDF fuel price) that was used when HDF fuel prices exceeded \$2.50. Exhibit 28 at 3-4. The credit would be included as a deduction on the customer's invoice. We were the first rail carrier to provide our customers the benefit of a credit mechanism if the average HDF price fell below the strike price. To date, no other rail carrier has included such a feature in its mileage-based fuel surcharge mechanism.

When the rebased fuel surcharge with the higher strike price took effect in 2011, the fuel surcharge assessed became a much smaller portion of the customer's total transportation bill.

#### **IV. Conclusion**

We spent enormous amounts of time and effort in designing the fuel surcharge that has been challenged by Cargill in this proceeding and in monitoring the effectiveness of the fuel surcharge. We made appropriate design decisions using an STB-approved index to create tables that would ensure our fuel surcharge would reasonably recover our incremental fuel costs and that it would be simple, fair to shippers, and transparent. We designed the surcharge to be based on the fuel consumption characteristics of the traffic that would be subject to the fuel surcharge, and we conducted regular analyses to make sure that our fuel consumption estimates were appropriate over time. Cargill's claims that BNSF's fuel surcharge bears no reasonable nexus to fuel consumption and that BNSF uses fuel surcharge as a profit center are absolutely false, and the Board should reject Cargill's complaint.

I declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed on October 21, 2011

  
Paul B. Anderson

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# MarketingNews



To: BNSF Customers

October 20, 2005

## BNSF Details Fuel-Surcharge Plan for Coal, Agricultural Products

BNSF Railway Company today announced that its mileage-based fuel surcharge program will take effect for Coal and Agricultural Products customers January 1, 2006, as scheduled. **An effective date for the mileage-based program for intermodal, automotive and other carload customers will be announced later.**

Customer feedback indicated that while a mileage-based fuel surcharge program is considered more fair and equitable than the current percentage-based program, some customers need more time to make adjustments to their own information systems to accommodate the new program.

BNSF is making and testing the changes to its information systems required to implement the mileage-based fuel surcharge program, and expects to complete that process later this year.

**Intermodal, automotive and carload customers other than Coal and Agricultural Products customers will continue to pay a fuel surcharge based on percentage of their freight transportation bills.**

As announced earlier this year, non-Rule 11 interline shipments also will continue to use the percentage-based fuel surcharge. Currently, the system used by the rail industry to electronically exchange interline billing and settlement information cannot accommodate a mileage-based fuel surcharge.

For Agricultural Products customers, the mileage-based fuel surcharge will reflect rail mileage between origin and destination points according to BNSF's on-line rail mileage inquiry tool at [http://www.bnsf.com/bnsf\\_was5/RailMiles/RMCentralController](http://www.bnsf.com/bnsf_was5/RailMiles/RMCentralController), instead of highway mileage as originally announced.

For Coal unit-train customers, the mileage-based fuel surcharge will be based on rail mileage between origin and destination points, as originally announced.

Other aspects of the mileage-based fuel surcharge program, the rail industry's first, remain unchanged. More information about BNSF's fuel-surcharge programs and tables for both mileage- and percentage-based programs are available at <http://www.bnsf.com/tools/prices/fuelsurcharge/index.html>.

This Marketing News bulletin is designed to inform BNSF customers of new service or product offerings, or of permanent changes to existing service.

If you have any questions, please contact your BNSF Marketing Representative or send an e-mail to [customerinterface@bnsf.com](mailto:customerinterface@bnsf.com).

This Marketing News bulletin is posted on our Web site at [www.bnsf.com](http://www.bnsf.com).

BNSF-0499240

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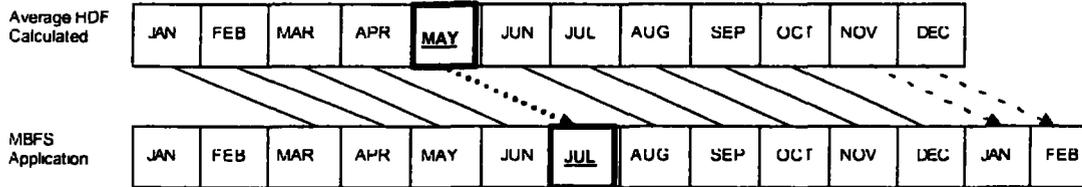
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**BNSF Rules Book 6100 – A**

**Item 3375E - Charge – Fuel Surcharge – (Issued November 16, 2005 – Effective January 1, 2006) (Increase)**

All tables in Sections A and B herein are calculated by determining the average price of Highway Diesel Fuel (HDF) in the month two months prior to the effective date of the Fuel Surcharge (FSC). Per example below, the HDF as calculated in May will be used for the applicable FSC in July.

**Example:**



**SECTION A:** Applying on all carload traffic with the following exception; this section does not apply when in conflict with Section B, Item 3375-Series, Item 3380-Series and Item 3381-Series of BNSF Rules Book 6100-Series herein.

Shipments made under pricing documents referring hereto will be subject to a fuel surcharge, when applicable. When the U. S. Average Price of Retail On-Highway Diesel Fuel (HDF) monthly average equals or exceeds \$1.25 per gallon, in the second calendar month prior to the month in which the fuel surcharge applies, a fuel surcharge, as shown in the Fuel Surcharge Table, will be applied to the total freight charges for each shipment waybill dated on or after the 1<sup>st</sup> day of the second following calendar month.

The fuel surcharge rates will be adjusted monthly. The Fuel Surcharge Table will be subject to periodic review. The fuel surcharge shall be included on the invoice for freight charges for each shipment.

The source for the price of HDF will be the U. S. Department of Energy's, EIA Retail On-Highway Diesel Prices Report, whose weekly average price is available on their WebPages at: <http://www.eia.doe.gov> . Select "Gasoline and Diesel Fuel Update". Then select "On Highway Diesel Prices" and the HDF prices are displayed.

<b>Fuel Surcharge Table</b>			
<u>Time Periods Average Price of HDF Between</u>	<u>Applicable Fuel Surcharge</u>	<u>Time Periods Average Price of HDF Between</u>	<u>Applicable Fuel Surcharge</u>
\$1.25 to \$1.299	0.5%	\$1.90 to \$1.949	7.0%
\$1.30 to \$1.349	1.0%	\$1.95 to \$1.999	7.5%
\$1.35 to \$1.399	1.5%	\$2.00 to \$2.049	8.0%
\$1.40 to \$1.449	2.0%	\$2.05 to \$2.099	8.5%
\$1.45 to \$1.499	2.5%	\$2.10 to \$2.149	9.0%
\$1.50 to \$1.549	3.0%	\$2.15 to \$2.199	9.5%
\$1.55 to \$1.599	3.5%	\$2.20 to \$2.249	10.0%
\$1.60 to \$1.649	4.0%	\$2.25 to \$2.299	10.5%
\$1.65 to \$1.699	4.5%	\$2.30 to \$2.349	11.0%
\$1.70 to \$1.749	5.0%	\$2.35 to \$2.399	11.5%
\$1.75 to \$1.799	5.5%	\$2.40 to \$2.449	12.0%
\$1.80 to \$1.849	6.0%	\$2.45 to \$2.499	12.5%
\$1.85 to \$1.899	6.5%	\$2.50 to \$2.549	13.0%

(Item continued on next page)

**BNSF Rules Book 6100 – A**

**Item 3375E- Charge – Fuel Surcharge (Item Continued)**

<b>Fuel Surcharge Table</b>			
<b>Time Periods Average Price of HDF Between</b>	<b>Applicable Fuel Surcharge</b>	<b>Time Periods Average Price of HDF Between</b>	<b>Applicable Fuel Surcharge</b>
\$2.55 to \$2.599	13.5%	\$2.80 to \$2.849	16.0%
\$2.60 to \$2.649	14.0%	\$2.85 to \$2.899	16.5%
\$2.65 to \$2.699	14.5%	\$2.90 to \$2.949	17.0%
\$2.70 to \$2.749	15.0%	\$2.95 to \$2.999	17.5%
\$2.75 to \$2.799	15.5%	\$3.00 to \$3.049	18.0%

Each \$0.05 per gallon increase thereafter, apply an additional 0.5%

**Example:**

For a Fuel Surcharge applied for shipments in the month of July, assuming the prior Time Period's (May) average monthly price of HDF was \$2.0356 Per Gallon, July's Fuel Surcharge Rate (FSR) would be 8.0%. Thus, for each \$100.00 of freight charges applicable to a shipment referring hereto the Fuel Surcharge would be \$8.00.

**SECTION B: Applying on Local Shipments (Routed BNSF Direct), Accounting Rule 11 and Junction Settlement Short Line shipments of Agricultural Commodities.** For a list of Agricultural Commodities, refer to BNSF web page at <http://www.bnsf.com/tools/prices/fuelsurcharge/agstccs.html>.

Junction Settlement Carriers appear in the revenue route. To determine if the Short Line in question is a Junction Settlement Carrier, access BNSF web page under Customer Tools then Short Line Partners, <http://domino.bnsf.com/website/shortlin.nsf/>.

Shipments made pursuant to pricing documents referring hereto will be subject to a Mileage Based Fuel Surcharge (MBFS), when applicable. The MBFS will be calculated by multiplying the applicable fuel surcharge per mile times the number of miles per shipment.

The applicable fuel surcharge per mile, as shown in the Fuel Surcharge Table, will be determined by using the U. S. Average Price of Retail On-Highway Diesel Fuel (HDF). When the HDF monthly average equals or exceeds \$1.25 per gallon, in the second calendar month prior to the month in which the MBFS applies, an MBFS will be applied to the total freight charges for each shipment waybill dated on or after the 1<sup>st</sup> day of the second following calendar month.

The MBFS will be adjusted monthly. The Fuel Surcharge Table will be subject to periodic review. The MBFS shall be included on the invoice for freight charges for each shipment.

The source for the price of HDF will be the U. S. Department of Energy's, EIA Retail On-Highway Diesel Prices Report, whose weekly average price is available on their WebPages at: <http://www.eia.doe.gov>. Select "Gasoline and Diesel Fuel Update". Then select "On Highway Diesel Prices" and the HDF prices are displayed.

Mileage calculations will be based on Railway Miles as published in BNSF web page under Customer Tools then Rail Mileage Inquiry, <http://www.bnsf.com/bnsf.was5/RailMiles/RMCentralController>. The mileage calculation will apply between each shipment's billed origin and destination.

(Item continued on next page)

**BNSF Rules Book 6100 – A**

**Item 3375E - Charge – Fuel Surcharge (Item Concluded)**

<b>Fuel Surcharge Table</b>			
<b>Time Periods Average</b>	<b>Fuel Surcharge</b>	<b>Time Periods Average</b>	<b>Fuel Surcharge</b>
<b>Price of HDF Between</b>	<b>Cents per Mile</b>	<b>Price of HDF Between</b>	<b>Cents per Mile</b>
\$0.00 to \$1.249	0.00	\$2.13 to \$2.169	0.23
\$1.25 to \$1.289	0.01	\$2.17 to \$2.209	0.24
\$1.29 to \$1.329	0.02	\$2.21 to \$2.249	0.25
\$1.33 to \$1.369	0.03	\$2.25 to \$2.289	0.26
\$1.37 to \$1.409	0.04	\$2.29 to \$2.329	0.27
\$1.41 to \$1.449	0.05	\$2.33 to \$2.369	0.28
\$1.45 to \$1.489	0.06	\$2.37 to \$2.409	0.29
\$1.49 to \$1.529	0.07	\$2.41 to \$2.449	0.30
\$1.53 to \$1.569	0.08	\$2.45 to \$2.489	0.31
\$1.57 to \$1.609	0.09	\$2.49 to \$2.529	0.32
\$1.61 to \$1.649	0.10	\$2.53 to \$2.569	0.33
\$1.65 to \$1.689	0.11	\$2.57 to \$2.609	0.34
\$1.69 to \$1.729	0.12	\$2.61 to \$2.649	0.35
\$1.73 to \$1.769	0.13	\$2.65 to \$2.689	0.36
\$1.77 to \$1.809	0.14	\$2.69 to \$2.729	0.37
\$1.81 to \$1.849	0.15	\$2.73 to \$2.769	0.38
\$1.85 to \$1.889	0.16	\$2.77 to \$2.809	0.39
\$1.89 to \$1.929	0.17	\$2.81 to \$2.849	0.40
\$1.93 to \$1.969	0.18	\$2.85 to \$2.889	0.41
\$1.97 to \$2.009	0.19	\$2.89 to \$2.929	0.42
\$2.01 to \$2.049	0.20	\$2.93 to \$2.969	0.43
\$2.05 to \$2.089	0.21	\$2.97 to \$3.009	0.44
\$2.09 to \$2.129	0.22	\$3.01 to \$3.049	0.45

Each \$0.04 per gallon increase thereafter, apply an additional \$0.01 per mile.

**Example:**

If May's average monthly price of HDF is \$1.856 Per Gallon then the MBFS applied in July would be \$0.16 per mile. Thus, for a shipment traveling 1,000 BNSF railway miles a Fuel Surcharge of \$160 would apply.

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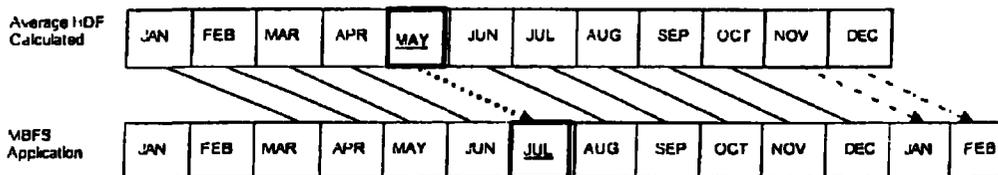
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**BNSF Rules Book 6100 – A**

**Item 3375H - Charge – Fuel Surcharge – (Issued April 3, 2007 – Effective April 25, 2007) (Increase)**

All tables in Sections A and B herein are calculated by determining the average price of Highway Diesel Fuel (HDF) in the month two months prior to the effective date of the Fuel Surcharge (FSC). Per example below, the HDF as calculated in May will be used for the applicable FSC in July.

**Example:**



**SECTION A:** Applying on carload traffic of EXEMPT commodities and all carload traffic moving under non-public rates with the following exceptions; this section does not apply when in conflict with Section B, Item 3375-Series, Item 3380-Series and Item 3381-Series of BNSF Rules Book 6100-Series herein. For a list of EXEMPT commodities, refer to STB Cite: 49CFR1039.11 at [http://www.access.gpo.gov/nara/cfr/waisidx\\_00/49cfr1039\\_00.html](http://www.access.gpo.gov/nara/cfr/waisidx_00/49cfr1039_00.html).

Shipments made under pricing documents referring hereto will be subject to a fuel surcharge, when applicable. When the U. S. Average Price of Retail On-Highway Diesel Fuel (HDF) monthly average equals or exceeds \$1.25 per gallon, in the second calendar month prior to the month in which the fuel surcharge applies, a fuel surcharge, as shown in the Fuel Surcharge Table, will be applied to the total freight charges for each shipment waybill dated on or after the 1<sup>st</sup> day of the second following calendar month.

The fuel surcharge rates will be adjusted monthly. The Fuel Surcharge Table will be subject to periodic review. The fuel surcharge shall be included on the invoice for freight charges for each shipment.

The source for the price of HDF will be the U. S. Department of Energy's, EIA Retail On-Highway Diesel Prices Report, whose weekly average price is available on BNSF WebPages at: <http://www.bnsf.com/tools/prices/fuelsurcharge/index.html>

<b>Fuel Surcharge Table</b>			
<u>Time Periods Average Price of HDF Between</u>	<u>Applicable Fuel Surcharge</u>	<u>Time Periods Average Price of HDF Between</u>	<u>Applicable Fuel Surcharge</u>
\$1.25 to \$1.299	0.5%	\$1.90 to \$1.949	7.0%
\$1.30 to \$1.349	1.0%	\$1.95 to \$1.999	7.5%
\$1.35 to \$1.399	1.5%	\$2.00 to \$2.049	8.0%
\$1.40 to \$1.449	2.0%	\$2.05 to \$2.099	8.5%
\$1.45 to \$1.499	2.5%	\$2.10 to \$2.149	9.0%
\$1.50 to \$1.549	3.0%	\$2.15 to \$2.199	9.5%
\$1.55 to \$1.599	3.5%	\$2.20 to \$2.249	10.0%
\$1.60 to \$1.649	4.0%	\$2.25 to \$2.299	10.5%
\$1.65 to \$1.699	4.5%	\$2.30 to \$2.349	11.0%
\$1.70 to \$1.749	5.0%	\$2.35 to \$2.399	11.5%
\$1.75 to \$1.799	5.5%	\$2.40 to \$2.449	12.0%
\$1.80 to \$1.849	6.0%	\$2.45 to \$2.499	12.5%
\$1.85 to \$1.899	6.5%	\$2.50 to \$2.549	13.0%

(Item continued on next page)

**BNSF Rules Book 6100 – A**

**Item 3375H - Charge – Fuel Surcharge (Item Continued)**

<b>Fuel Surcharge Table</b>			
<b>Time Periods Average Price of HDF Between</b>	<b>Applicable Fuel Surcharge</b>	<b>Time Periods Average Price of HDF Between</b>	<b>Applicable Fuel Surcharge</b>
\$2.55 to \$2.599	13.5%	\$2.80 to \$2.849	16.0%
\$2.60 to \$2.649	14.0%	\$2.85 to \$2.899	16.5%
\$2.65 to \$2.699	14.5%	\$2.90 to \$2.949	17.0%
\$2.70 to \$2.749	15.0%	\$2.95 to \$2.999	17.5%
\$2.75 to \$2.799	15.5%	\$3.00 to \$3.049	18.0%

Each \$0.05 per gallon increase thereafter, apply an additional 0.5%

**Example:**

For a Fuel Surcharge applied for shipments in the month of April, assuming the prior Time Period's (February) average monthly price of HDF was \$2.488 Per Gallon, April's Fuel Surcharge Rate (FSR) would be 12.5%. Thus, for each \$100.00 of freight charges applicable to a shipment referring hereto the Fuel Surcharge would be \$12.50.

**SECTION B: Applying on Interline, Local Shipments (Routed BNSF Direct), Accounting Rule 11, Junction Settlement Short Lines of Agricultural Commodities and all Carload shipments of non-contract, non-boxcar regulated commodities moving on public rates. For a list of Agricultural Commodities, refer to BNSF web page at <http://www.bnsf.com/tools/prices/fuelsurcharge/agstccc.html>. For a list of EXEMPT commodities, refer to STB Cite: 49CFR1039.11 at [http://www.access.gpo.gov/nara/cfr/waisidx\\_00/49cfr1039\\_00.html](http://www.access.gpo.gov/nara/cfr/waisidx_00/49cfr1039_00.html).**

Junction Settlement Carriers appear in the revenue route. To determine if the Short Line in question is a Junction Settlement Carrier, access BNSF web page under Customer Tools then Short Line Partners, <http://domino.bnsf.com/website/shortlin.nsf/>.

Shipments made pursuant to pricing documents referring hereto will be subject to a Mileage Based Fuel Surcharge (MBFS), when applicable. The MBFS will be calculated by multiplying the applicable fuel surcharge per mile times the number of miles per shipment.

The applicable fuel surcharge per mile, as shown in the Fuel Surcharge Table, will be determined by using the U. S. Average Price of Retail On-Highway Diesel Fuel (HDF). When the HDF monthly average equals or exceeds \$1.25 per gallon, in the second calendar month prior to the month in which the MBFS applies, an MBFS will be applied to the total freight charges for each shipment waybill dated on or after the 1<sup>st</sup> day of the second following calendar month.

The MBFS will be adjusted monthly. The Fuel Surcharge Table will be subject to periodic review. The MBFS shall be included on the invoice for freight charges for each shipment.

The source for the price of HDF will be the U. S. Department of Energy's, EIA Retail On-Highway Diesel Prices Report, whose weekly average price is available on BNSF WebPages at: <http://www.bnsf.com/tools/prices/fuelsurcharge/index.html>

(Item continued on next page)

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**Item 3375H - Charge – Fuel Surcharge (Item Continued)**

Mileage calculations will be based on Railway Miles as published in BNSF web page under Customer Tools then Rail Mileage Inquiry, <http://www.bnsf.com/bnsf.was5/RailMiles/RMCentralController>. The mileage calculation will apply between each shipment's billed origin and destination.

Application of PC\*Miler Rail from ALK Technologies will be used for mileage-based fuel surcharge on Interline traffic based on the revenue route and applicable interchange with connecting carrier.

Exception: For Agricultural commodities, Pacific North West (PNW) export destinations will be grouped using Seattle, WA as destination upon which the mileage-based fuel surcharge will be calculated for all whole grain (STCC 011) shipments from all BNSF origin states except California, Oregon, or Washington. Export destinations will be as follows:

**PNW Group:** Rivergate, OR, Portland, OR, Kalama, WA, Longview, WA, Seattle, WA, Tacoma, WA and Vancouver, WA. As an example, the fuel surcharge from Alton, ND to Vancouver, WA will be calculated using the miles from Alton, ND to Seattle, WA (1,496 miles).

Texas Gulf export facilities will be grouped using Houston, TX as the destination upon which the mileage-based fuel surcharge will be calculated for all whole grain (STCC 011 and STCC 2041979) shipments. Export destinations will be as follows:

**Texas Gulf Group:** Beaumont, Corpus Christi, Galena Park, Galveston, Houston and Port of Brownsville, TX. Shipments must be unloaded at these destinations. As an example, the fuel surcharge from Wichita, KS to Galveston, TX will be calculated using the miles from Wichita, KS to Houston, TX (646 miles).

**Fuel Surcharge Table**

<u>Time Periods Average Price of HDF Between</u>	<u>Fuel Surcharge Cents per Mile</u>	<u>Time Periods Average Price of HDF Between</u>	<u>Fuel Surcharge Cents per Mile</u>
\$0.00 to \$1.249	0.00	\$2.13 to \$2.169	0.23
\$1.25 to \$1.289	0.01	\$2.17 to \$2.209	0.24
\$1.29 to \$1.329	0.02	\$2.21 to \$2.249	0.25
\$1.33 to \$1.369	0.03	\$2.25 to \$2.289	0.26
\$1.37 to \$1.409	0.04	\$2.29 to \$2.329	0.27
\$1.41 to \$1.449	0.05	\$2.33 to \$2.369	0.28
\$1.45 to \$1.489	0.06	\$2.37 to \$2.409	0.29
\$1.49 to \$1.529	0.07	\$2.41 to \$2.449	0.30
\$1.53 to \$1.569	0.08	\$2.45 to \$2.489	0.31
\$1.57 to \$1.609	0.09	\$2.49 to \$2.529	0.32
\$1.61 to \$1.649	0.10	\$2.53 to \$2.569	0.33
\$1.65 to \$1.689	0.11	\$2.57 to \$2.609	0.34
\$1.69 to \$1.729	0.12	\$2.61 to \$2.649	0.35
\$1.73 to \$1.769	0.13	\$2.65 to \$2.689	0.36
\$1.77 to \$1.809	0.14	\$2.69 to \$2.729	0.37
\$1.81 to \$1.849	0.15	\$2.73 to \$2.769	0.38
\$1.85 to \$1.889	0.16	\$2.77 to \$2.809	0.39
\$1.89 to \$1.929	0.17	\$2.81 to \$2.849	0.40
\$1.93 to \$1.969	0.18	\$2.85 to \$2.889	0.41
\$1.97 to \$2.009	0.19	\$2.89 to \$2.929	0.42

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***Item 3375H - Charge - Fuel Surcharge (Item Concluded)***

<b>Fuel Surcharge Table</b>			
<b>Time Periods Average</b>	<b>Fuel Surcharge</b>	<b>Time Periods Average</b>	<b>Fuel Surcharge</b>
<b><u>Price of HDF Between</u></b>	<b><u>Ccnts per Mile</u></b>	<b><u>Price of HDF Between</u></b>	<b><u>Ccnts per Mile</u></b>
\$2.01 to \$2.049	0.20	\$2.93 to \$2.969	0.43
\$2.05 to \$2.089	0.21	\$2.97 to \$3.009	0.44
\$2.09 to \$2.129	0.22	\$3.01 to \$3.049	0.45

Each \$0.04 per gallon increase thereafter, apply an additional \$0.01 per mile

**Example:**

If February's average monthly price of HDF is \$2.488 Per Gallon then the MBFS applied in April would be \$0.31 per mile. Thus, for a shipment traveling 1,010 railway miles a Fuel Surcharge of \$313.10 would apply.

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The Engine that Connects Us

# Pricing Update

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Customer Notifications inform BNSF customers of the latest news covering BNSF services, tools, prices and facilities.

**To: All BNSF Carload Customers**

07/26/2010

## **BNSF Rebases Fuel Surcharge Beginning January 2011**

BNSF Railway's strike price, the Highway Diesel Fuel (HDF) price at which BNSF assesses a fuel surcharge, will be reset from \$1.25 per gallon to \$2.50 per gallon **beginning January 2011**.

The change applies to BNSF's mileage-based and percent-of-revenue fuel surcharge programs for Agricultural Products, Industrial Products, Coal and Automotive shipments. Intermodal shipments will not be affected.

Underlying base rates will be appropriately adjusted to reflect the new strike price. This change reflects current fuel pricing trends which, on a sustained basis, have averaged above \$2.50 since 2005.

BNSF will also be instituting a program that compensates customers when HDF falls below the strike price for an extended period.

Tables reflecting the new strike price and other program details are available on the BNSF website at <http://www.bnsf.com/customers/fuel-surcharge/>.

Your BNSF Sales and Marketing representative will provide you with additional details as they become available over the next few months. If you have any questions, please call your representative.

Your business is important to us. Thank you for choosing BNSF as your transportation service provider.

If you have any questions, please send an email to [Customer.Notifications@bnsf.com](mailto:Customer.Notifications@bnsf.com)

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***Item 3376-C - Charge – Carload Percentage Based and Mileage Based Fuel Surcharge (\$2.50 Strike Price)  
Issued October 15, 2010 – Effective January 1, 2011 (Change in Wording)***

**General** – Refer to Item 3374 for General Rules and Methodology for calculating the fuel surcharge.

- **Section A** of this item contains the Percentage Based Fuel Surcharge
- **Section B** of this item contains the Mileage Based Fuel Surcharge

**Section A: Percentage Based Fuel Surcharge:**

**Application** - Applies on the following carload shipments:

- EXEMPT shipments, not moving under contracts/private price authorities (except as otherwise provided):
  - For a list of Exempt Commodities, please refer to 49 CFR 1039, which is available online at: [http://www.access.gpo.gov/nara/cfr/waisidx\\_00/49cfr1039\\_00.html](http://www.access.gpo.gov/nara/cfr/waisidx_00/49cfr1039_00.html)
  - Including shipments in boxcars.
- Or, Shipments moving under contracts/private price authorities with an effective date of 1/1/2011 or after unless otherwise stated.
- Or, Shipments moving under price authorities referring specifically to this item (3376 Section A).
- Except Agricultural Commodities. For a list of agricultural commodities, please refer to BNSF web page at [Agricultural Commodities](#).

A fuel surcharge applies as shown in the Fuel Surcharge Table in this section.

When the U. S. Average Price of Retail On-Highway Diesel Fuel (HDF) monthly average equals or exceeds \$2.50 per gallon;

- A positive fuel surcharge will apply on the applicable linehaul freight charges.
- The fuel surcharge will be included as a separate line item on the invoice for freight charges for each shipment.

When the U. S. Average Price of Retail On-Highway Diesel Fuel (HDF) monthly average is less than \$2.50 per gallon and equals or exceeds \$1.25 per gallon;

- When BNSF is the collecting carrier of linehaul freight charges, a negative fuel surcharge will apply only on BNSF's portion of the linehaul freight charges unless otherwise stated.
- A negative fuel surcharge will not be assessed to other carriers' portions of the linehaul freight charges, and their portions will not be included in the calculation.
- The negative fuel surcharge will be included as a deduction in a separate line item on the invoice for freight charges for each shipment.
- When BNSF is not the collecting carrier of linehaul freight charges, no negative fuel surcharge will apply.

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**Item 3376-C – Charge- Carload Percentage Based and Mileage Based Fuel Surcharge (\$2.50 Strike Price)  
(Item Continued)**

**Section A: Percentage Based Fuel Surcharge**

<b>Carload Percentage Based Fuel Surcharge Table</b>			
<b>Time Periods Average Price of HDF Between</b>	<b>Applicable Fuel Surcharge</b>	<b>Time Periods Average Price of HDF Between</b>	<b>Applicable Fuel Surcharge</b>
Each \$0.05 HDF per gallon decrease thereafter to \$1.25	Decrease .05%	\$2.90 to \$2.949	4.5%
\$1.70 to \$1.749	-7.5%	\$2.95 to \$2.999	5.0%
\$1.75 to \$1.799	-7.0%	\$3.00 to \$3.049	5.5%
\$1.80 to \$1.849	-6.5%	\$3.05 to \$3.099	6.0%
\$1.85 to \$1.899	-6.0%	\$3.10 to \$3.149	6.5%
\$1.90 to \$1.949	-5.5%	\$3.15 to \$3.199	7.0%
\$1.95 to \$1.999	-5.0%	\$3.20 to \$3.249	7.5%
\$2.00 to \$2.049	-4.5%	\$3.25 to \$3.299	8.0%
\$2.05 to \$2.099	-4.0%	\$3.30 to \$3.349	8.5%
\$2.10 to \$2.149	-3.5%	\$3.35 to \$3.399	9.0%
\$2.15 to \$2.199	-3.0%	\$3.40 to \$3.449	9.5%
\$2.20 to \$2.249	-2.5%	\$3.45 to \$3.499	10.0%
\$2.25 to \$2.299	-2.0%	\$3.50 to \$3.549	10.5%
\$2.30 to \$2.349	-1.5%	\$3.55 to \$3.599	11.0%
\$2.35 to \$2.399	-1.0%	\$3.60 to \$3.649	11.5%
\$2.40 to \$2.449	-0.5%	\$3.65 to \$3.699	12.0%
\$2.45 to \$2.499	0.0%	\$3.70 to \$3.749	12.5%
\$2.50 to \$2.549	0.5%	\$3.75 to \$3.799	13.0%
\$2.55 to \$2.599	1.0%	\$3.80 to \$3.849	13.5%
\$2.60 to \$2.649	1.5%	\$3.85 to \$3.899	14.0%
\$2.65 to \$2.699	2.0%	\$3.90 to \$3.949	14.5%
\$2.70 to \$2.749	2.5%	\$3.95 to \$3.999	15.0%
\$2.75 to \$2.799	3.0%	\$4.00 to \$4.049	15.5%
\$2.80 to \$2.849	3.5%	\$4.05 to \$4.099	16.0%
\$2.85 to \$2.899	4.0%	Each \$0.05 HDF per gallon increase	Additional .5%

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***Item 3376-C – Charge - Carload Percentage Based and Mileage Based Fuel Surcharge (\$2.50 Strike Price)  
(Item Continued)***

**Section B: Mileage Based Fuel Surcharge:**

**Application** - Applies on the following carload shipments:

- Regulated shipments (except as otherwise provided):
  - When an Item covering BNSF Fuel Surcharge refers to Regulated Commodities, it refers to all commodities except those that are EXEMPT; for a list of EXEMPT commodities, please refer to 49 CFR 1039, which is available online at [http://www.access.gpo.gov/nara/cfr/waisidx\\_00/49cfr1039\\_00.html](http://www.access.gpo.gov/nara/cfr/waisidx_00/49cfr1039_00.html)
  - Excluding shipments in boxcars.
- Or Agricultural Commodities (including regulated and exempt shipments). For a list of agricultural commodities, please refer to BNSF web page at [Agricultural Commodities](#). See Geographical Definitions and Exceptions below.
- Or Shipments moving under pricing authorities referring specifically to this item (3376 Section B).

A fuel surcharge applies as shown in the Fuel Surcharge Table in this section

When the U. S. Average Price of Retail On-Highway Diesel Fuel (HDF) monthly average equals or exceeds \$2.50 per gallon:

- A positive fuel surcharge will apply on the applicable linehaul freight charges
- The fuel surcharge will be included as a separate line item on the invoice for freight charges for each shipment

When the U. S. Average Price of Retail On-Highway Diesel Fuel (HDF) monthly average is less than \$2.50 per gallon and equals or exceeds \$1.25 per gallon;

- When BNSF is the collecting carrier of linehaul freight charges, a negative fuel surcharge will apply only on BNSF's portion of the linehaul freight charges unless otherwise stated.
- A negative fuel surcharge will not be assessed to other carriers' portions of the linehaul freight charges, and their portions will not be included in the calculation.
- The negative fuel surcharge will be included as a deduction in a separate line item on the invoice for freight charges for each shipment.
- When BNSF is not the collecting carrier of linehaul freight charges, no negative fuel surcharge will apply.

**Geographical Definitions and Exceptions –**

- For Agricultural Commodities only:
  - **Pacific North West (PNW)** export destinations will be grouped using Seattle, WA as destination upon which the mileage based fuel surcharge will be calculated for all whole grain (STCC 011) shipments from all BNSF origin states except California, Oregon, or Washington.
    - Export destinations will be as follows: **PNW Group:** Rivergate, OR, Portland, OR, Kalama, WA, Longview, WA, Seattle, WA, Tacoma, WA and Vancouver, WA. As an example, the fuel surcharge from Alton, ND to Vancouver, WA will be calculated using the miles from Alton, ND to Seattle, WA (1,496 miles).
  - **Texas Gulf** export facilities will be grouped using Houston, TX as the destination upon which the mileage based fuel surcharge will be calculated for all whole grain (STCC 011 and STCC 2041979) shipments.
    - Export destinations will be as follows: **Texas Gulf Group:** Beaumont, Corpus Christi, Galena Park, Galveston, Houston and Port of Brownsville, TX. Shipments must be unloaded at these destinations. As an example, the fuel surcharge from Wichita, KS to Galveston, TX will be calculated using the miles from Wichita, KS to Houston, TX (632 miles)

(Item continued on next page)

**BNSF Rules Book 6100 – A**

**Item 3376-C - Charge – Carload Percentage Based and Mileage Based Fuel Surcharge (\$2.50 Strike Price)  
(Item Concluded)**

**Section B: Mileage Based Fuel Surcharge**

<b>Carload Mileage Based Fuel Surcharge Table</b>			
<b>Price of HDF Between</b>	<b>Fuel Surcharge Cents per Mile</b>	<b>Price of HDF Between</b>	<b>Fuel Surcharge Cents per Mile</b>
Each \$0.04 HDF per gallon decrease thereafter to \$1.25	Decrease 0.01 per mile	\$2.98 to \$3.019	0.13
\$1.90 to \$1.939	-0.14	\$3.02 to \$3.059	0.14
\$1.94 to \$1.979	-0.13	\$3.06 to \$3.099	0.15
\$1.98 to \$2.019	-0.12	\$3.10 to \$3.139	0.16
\$2.02 to \$2.059	-0.11	\$3.14 to \$3.179	0.17
\$2.06 to \$2.099	-0.10	\$3.18 to \$3.219	0.18
\$2.10 to \$2.139	-0.09	\$3.22 to \$3.259	0.19
\$2.14 to \$2.179	-0.08	\$3.26 to \$3.299	0.20
\$2.18 to \$2.219	-0.07	\$3.30 to \$3.339	0.21
\$2.22 to \$2.259	-0.06	\$3.34 to \$3.379	0.22
\$2.26 to \$2.299	-0.05	\$3.38 to \$3.419	0.23
\$2.30 to \$2.339	-0.04	\$3.42 to \$3.459	0.24
\$2.34 to \$2.379	-0.03	\$3.46 to \$3.499	0.25
\$2.38 to \$2.419	-0.02	\$3.50 to \$3.539	0.26
\$2.42 to \$2.459	-0.01	\$3.54 to \$3.579	0.27
\$2.46 to \$2.499	0.00	\$3.58 to \$3.619	0.28
\$2.50 to \$2.539	0.01	\$3.62 to \$3.659	0.29
\$2.54 to \$2.579	0.02	\$3.66 to \$3.699	0.30
\$2.58 to \$2.619	0.03	\$3.70 to \$3.739	0.31
\$2.62 to \$2.659	0.04	\$3.74 to \$3.779	0.32
\$2.66 to \$2.699	0.05	\$3.78 to \$3.819	0.33
\$2.70 to \$2.739	0.06	\$3.82 to \$3.859	0.34
\$2.74 to \$2.779	0.07	\$3.86 to \$3.899	0.35
\$2.78 to \$2.819	0.08	\$3.90 to \$3.939	0.36
\$2.82 to \$2.859	0.09	\$3.94 to \$3.979	0.37
\$2.86 to \$2.899	0.10	\$3.98 to \$4.019	0.38
\$2.90 to \$2.939	0.11	\$4.02 to \$4.059	0.39
\$2.94 to \$2.979	0.12	Each \$0.04 HDF per gallon increase	Additional \$0.01 per mile

Fisher



**I. Introduction**

My name is Benton V. Fisher. I am Senior Managing Director of FTI Consulting, an economic consulting firm, and my office is located at 1101 K Street, N.W., Washington, DC 20005. A statement describing my background, experience, and qualifications is attached hereto as Exhibit BVF-1. I have spent more than 20 years involved in various aspects of transportation consulting, including economic studies of costs and revenues, traffic and operating analyses, and work with costing and financial reporting systems. Much of my work for the railroad industry has required a detailed understanding of the costing approaches and models that are used by the Surface Transportation Board (“STB”) for a range of regulatory purposes. I have testified numerous times at the STB regarding rates and URCS costs (Uniform Railroad Costing System, the STB’s general purpose costing system) for individual movements, traffic groups, and entire networks. I have extensive experience with the URCS costing methodologies and formulae, as well as with detailed railroad traffic data.

I have been retained by BNSF Railway Company (“BNSF”) to submit this Verified Statement (“VS”) in response to the opening evidence filed on August 25, 2011 by Cargill, Incorporated (“Cargill”), in Docket No. 42120 before the STB. This dispute relates to claims by Cargill that BNSF’s mileage-based fuel surcharge program (“MBFSC”) that applies to carload traffic, other than unit-train coal and taconite, is an unreasonable practice. Cargill submitted a Verified Statement of Thomas D. Crowley and Robert D. Mulholland (“Crowley/Mulholland VS”) as part of its opening evidence. In this Verified Statement, I address the analyses in the Crowley/Mulholland VS, which purport to demonstrate that BNSF collected excess revenues under its MBFSC from 2006 through 2010 and present alternative values for the MBFSC design

elements that supposedly would not have resulted in an overcharge.<sup>1</sup> I conclude that Messrs. Crowley and Mulholland made numerous errors and omissions in calculating the incremental fuel costs associated with the MBFSC shipments, errors that resulted in a significant understatement of costs and, as a result, an inaccurate assessment of supposedly excessive revenues, or “overcharges,” that Cargill claims were collected under the MBFSC. I describe in detail the errors and omissions of Messrs. Crowley and Mulholland in Sections IV and V below.

In summary, they result from:

- (1) the improper calculation of BNSF’s variable locomotive fuel costs based on adjustments to URCS costs that are prohibited by the STB;
- (2) the failure to account for BNSF’s total fuel costs that are reported to the STB by excluding non-variable locomotive fuel costs and non-locomotive fuel costs;
- (3) the invalid inclusion of gains and losses that BNSF incurred as a result of its fuel price hedging activities;
- (4) the failure to recognize the “safe harbor” that the STB established for rail carriers that rely upon the Energy Information Administration’s U.S. Average Retail On-Highway Diesel Fuel Price (“HDF”) index in their fuel-surcharge mechanisms; and
- (5) the separation of the MBFSC shipments into two categories, Agricultural Products and Other Freight.

I show that when the errors in the Crowley/Mulholland analysis are corrected, there was no over-recovery of BNSF’s incremental costs under the MBFSC.

Finally, I address the alternative fuel surcharge values presented by Messrs. Crowley and Mulholland and show that those alternative values could not have been selected by BNSF in designing the MBFSC because those values are derived from data that were not available to

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<sup>1</sup> Cargill asserts that its claims encompass application of the MBFSC after January 1, 2011, when BNSF changed the MBFSC to use a higher strike price, the fuel cost per gallon above which a surcharge is assessed. But Cargill submits no evidence at all relating to the post-2010 MBFSC.

BNSF. I also show that the proposed alternative step-function values would not have been a reasonable alternative to those actually chosen by BNSF.<sup>2</sup> Using the data on which Messrs. Crowley and Mulholland base their analysis, as corrected, I show that BNSF's use of a step function that was based on fuel consumption of 4 miles-per-gallon was appropriate for designing the MBFSC and is validated even in hindsight. I also show that the Crowley/Mulholland analysis of BNSF's "strike-price" starting point is unreliable and does not provide a basis for finding that BNSF was required to select a different starting point.

## **II. The BNSF Mileage-Based Fuel Surcharge**

### **A. Inherent Variation in the Factors Affecting Fuel Costs**

Messrs. Crowley and Mulholland analyze the MBFSC in hindsight, but BNSF designed the MBFSC as a mechanism that would be applied in the future. Achieving perfect precision or accuracy in designing any mechanism to cover expected future costs and to reflect future fuel consumption is not possible for a variety of reasons. It is difficult to determine how much fuel cost to attribute to a particular carload or shipment. Even if the historical fuel cost attributable to a particular movement or group of movements could be determined with precision, that cost would not remain static. This makes it difficult to predict how fuel costs in the aggregate for large numbers of shipments will vary over time.

Many variables affect the fuel consumed in handling BNSF's shipments, including traffic mix, terrain, congestion, weather, weight, and other operating characteristics. These variables will fluctuate over time and from move to move. For example, movements of similar commodities will exhibit different fuel-consumption characteristics depending on their routes.

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<sup>2</sup> Messrs. Crowley and Mulholland refer to the increment in HDF price over which the fuel surcharge increases by \$0.01 per mile as the "step function."

Agricultural traffic to the Pacific Northwest has higher fuel consumption than similar traffic destined for the Gulf Coast because the Pacific Northwest traffic traverses mountainous territory. If agricultural market conditions cause traffic to shift between these two destinations, aggregate fuel consumption and costs will change. Likewise, congestion can have a significant impact on fuel costs. As traffic levels increase, creating congestion, operating efficiency decreases and fuel consumption increases. The opposite is true when traffic levels drop, and train operations become more fluid.

Further, BNSF's carload traffic covers a range of different traffic moving in different types of equipment between many markets served by BNSF in the western half of the U.S., with a range of fuel consumption characteristics. For example, the MBFSC applies to shipments of wheat, liquefied petroleum gas (LPG), sand, anhydrous ammonia, scrap iron, sulphuric acid, soybeans, clay, asphalt, sheet steel, and sugar beets, among others.

The above considerations mean that any fuel surcharge designed for future use will necessarily generate an approximation of expected future costs and revenues. The STB recognizes this fact. In *Fuel Surcharges III*, the STB stated that a railroad should design its fuel surcharge mechanism so as to produce a "reasonable nexus to fuel consumption."<sup>3</sup> In *Dairyland*, the STB clarified that "Practicably, we cannot require railroads to incorporate every conceivable factor that could affect fuel costs into a formula that would yield an exact match."<sup>4</sup>

**B. Design Elements of BNSF's Mileage-Based Surcharge**

BNSF was the first U.S. freight carrier to adopt a mileage-based surcharge. BNSF implemented its MBFSC before the STB undertook a review of railroad fuel surcharges and

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<sup>3</sup> *Rail Fuel Surcharges*, STB Ex Parte No. 661, slip op. at 9 (served Jan. 26, 2007) ("*Fuel Surcharges III*").

<sup>4</sup> *Dairyland Power Cooperative v. Union Pacific Railroad Co.*, STB Docket No. 42105, slip op. at 5 (served July 29, 2008).

before the STB ordered railroads to use a fuel surcharge that bore a “reasonable nexus” to fuel consumption. BNSF implemented its MBFSC before the STB endorsed the use of mileage as a design element of railroad fuel surcharges.

As the STB has acknowledged, designing a fuel surcharge based on mileage is an appropriate approach. “Mileage is one of the primary factors that affects fuel consumption.”<sup>5</sup> This conclusion is confirmed by the STB’s regulatory costing system, URCS, which treats virtually all fuel costs as mileage-related. The following table summarizes the proportion of BNSF’s variable locomotive fuel costs that are assigned by URCS on the basis of miles.<sup>6</sup>

**Table 1**  
**Portion of URCS Locomotive Fuel Costs Assigned to Miles,**  
**BNSF System-Wide**

2006	2007	2008	2009	2010
93%	93%	92%	92%	92%

As explained by BNSF’s witnesses Messrs. John Lanigan and Paul Anderson in their Verified Statements, BNSF implemented its MBFSC based on two key design components: (1) a highly correlated but approximate measure of the expected increase in its fuel costs based on a publicly available source – the HDF price; and (2) an approximate locomotive fuel-consumption rate. With respect to the first component, BNSF selected the average monthly price for the U.S. Average Retail On-Highway Diesel Fuel Price (“HDF”) published by the Energy Information Administration (“EIA”) of the U.S. Department of Energy. After BNSF adopted its MBFSC in January 2006, the STB approved the use of HDF prices in railroad fuel surcharges. While the STB had initially proposed to *require* railroads to use the HDF as their index of fuel costs, in the

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<sup>5</sup> *Fuel Surcharges III*, slip op. at 9.

<sup>6</sup> BNSF WP “URCS Locomotive Fuel Costs.xlsx,” tab “URCS\_Loco\_Mileage\_Fuel\_Costs.” These figures are based on STB BNSF URCS for 2006 through 2009, and the preliminary 2010 BNSF URCS submitted by Messrs. Crowley and Mulholland on opening.

*Fuel Surcharges III* decision the STB chose not to make use of the HDF mandatory. Instead, the STB created a “safe harbor” for use of HDF prices. As the STB explained: “there is general agreement – even among those carriers that object to STB imposition of a uniform index – that the EIA Index accurately reflects changes in fuel costs in the rail industry.” The STB continued:

Because the EIA Index has been the subject of notice and comment and has withstood scrutiny on this record as discussed above, we conclude that it is a reasonable index to apply to measure changes in fuel costs for purposes of a fuel surcharge program. Thus, it provides a “safe harbor” upon which carriers can rely for an index. Use of an alternative index may be subject to challenge.<sup>7</sup>

As I explain below, the STB’s safe harbor is important here because the Crowley/Mulholland analysis and conclusions regarding BNSF’s MBFSC are based in large part on their focus on the variation over time between BNSF’s internal fuel costs and HDF prices. This variation should be irrelevant to their analysis given the safe-harbor status of the MBFSC index.

With respect to the second component of the MBFSC, BNSF used a fuel-consumption rate of 4 miles per gallon (“MPG”). BNSF’s selection of this consumption rate is discussed in detail in BNSF’s Reply Statement and in the Anderson VS. As explained by Mr. Anderson, BNSF’s selection of 4 MPG as the basis for the MBFSC was well-supported by the data that BNSF had available at the time. This consumption rate is also confirmed by an after-the-fact analysis of the fuel costs and miles. As described in further detail below in Section IV, when the Crowley/Mulholland analysis of BNSF’s fuel costs is corrected to apply the appropriate URCS costing approach and to account for BNSF’s total fuel expense, the average fuel consumption for the shipments subject to the MBFSC in 2006-2010 is 4.01 MPG. The following table presents

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<sup>7</sup> *Fuel Surcharges III*, slip op. at 11.

the average MPGs in each year for the MBFSC traffic, which (as expected) vary due to a number of factors – including many beyond BNSF’s control – yet are consistently in the neighborhood of the 4 MPG assumption that BNSF incorporated in the MBFSC.<sup>8</sup>

**Table 2**  
**FSC Miles per Gallon, MBFSC Traffic**

2006	2007	2008	2009	2010
4.04	3.99	3.96	3.98	4.07

The MBFSC challenged by Cargill, applicable from January 1, 2006, through December 31, 2010, was set forth in BNSF Rules Book 6100-A, Item 3375L, Section B, which is attached to Cargill’s Complaint as Exhibit A. The core of that publication is a table that presents the fuel surcharge per mile corresponding with different levels of the HDF. Starting with an HDF of \$1.25 per gallon, a surcharge of \$0.01 per mile is applied; the surcharge increases by \$0.01 per mile for each \$0.04 increase in the HDF. The HDF price is employed in this table as a proxy to measure the change in the price BNSF pays for fuel. The increase of \$0.01 for every \$0.04 increase in the HDF is what Messrs. Crowley and Mulholland refer to as the “step function” of the MBFSC. That step function reflects BNSF’s assumption that the fuel consumed to handle the MBFSC shipments is approximately 4 MPG.

Messrs. Crowley and Mulholland state that: “{

.}”<sup>9</sup> In fact, the 1:4 step function does, as a matter of arithmetic, mean that the MBFSC

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<sup>8</sup> BNSF WP “60-Month MBFSC Fuel Recovery.xlsx.” These results are based on my restatement of the Crowley/Mulholland analysis, discussed below in Section IV.

<sup>9</sup> Crowley/Mulholland VS at 26, and also footnote 80 (“{

}”).

incorporates a 4 MPG factor. An increase of one cent in the fuel surcharge per mile associated with each four-cent increase in the HDF price per gallon translates to 4 miles per gallon.<sup>10</sup>

### **III. Overview of the Crowley/Mulholland Analysis**

The Crowley/Mulholland analysis of BNSF's MBFSC is divided into two parts. In the first part of their analysis, Messrs. Crowley and Mulholland conclude that the BNSF MBFSC "overcharged" shippers by \$560.9 million between 2006 and 2010.<sup>11</sup> Messrs. Crowley and Mulholland reach this conclusion by comparing BNSF's fuel surcharge revenues for all shipments, including both regulated and unregulated traffic, that were subject to the MBFSC during that period to what they assert were BNSF's fuel costs for those shipments. The Crowley/Mulholland cost assumptions are calculated using URCS unit costs, BNSF's fuel costs per gallon, and BNSF traffic information. Messrs. Crowley and Mulholland determined BNSF's "incremental" fuel costs based on the assumption that \$0.73 per gallon of BNSF's fuel costs is included in BNSF's base rate for each movement, and they treated the portion of BNSF's total fuel costs above \$0.73 per gallon as BNSF's "incremental" fuel costs. Messrs. Crowley and Mulholland concluded that, based on their after-the-fact analysis, any difference between their calculated "incremental" fuel cost and BNSF's fuel surcharge revenues was an improper over-recovery by BNSF in violation of the STB's standards applicable to fuel surcharges.

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<sup>10</sup> As explained by Mr. Anderson, any measure of fuel-consumption rates is dependent on the mileages that are used. The MBFSC is applied on the basis of tariff miles, and not the actual miles of the shipment, which on average exceed the distance for which the fuel surcharge is assessed. As a result, the effective fuel-consumption rate is lower when calculated based on the surcharge miles – which are fewer – than the actual miles. Messrs Crowley and Mulholland recognize this difference and treat properly the different mileage figures. Crowley/Mulholland VS at 27.

<sup>11</sup> Cargill's Opening Statement repeatedly characterizes fuel surcharge revenues that allegedly exceeded BNSF's incremental fuel costs as "overcharges." *See, e.g.*, Cargill Open. at 3. Messrs. Crowley and Mulholland also refer to these asserted overcharges as "over-recovery." *See, e.g.*, Crowley/Mulholland VS at 16.

The second part of the Crowley/Mulholland analysis is the development and presentation of the same MBFSC with alternative MPG and strike-price values developed through a series of regressions. Using the output from their recovery analyses, Messrs. Crowley and Mulholland reverse-engineer proposed MBFSC values that would have, in hindsight, recovered only the incremental costs that Messrs. Crowley and Mulholland have calculated. In fact, their approach results in a full recovery of their calculated BNSF incremental fuel costs only in aggregate over the entire five-year period. If BNSF had assessed the two “corrected” MBFSCs that Messrs. Crowley and Mulholland endorse, BNSF would have under-recovered even the Crowley/Mulholland understated estimate of BNSF’s incremental fuel costs in three of the five years.<sup>12</sup>

While their analysis is based on reverse-engineering the design of an MBFSC based on historical cost data that were not available when BNSF developed the MBFSC, Messrs. Crowley and Mulholland nevertheless use their series of regression analyses as the basis for determining the “correct fuel surcharge that should have been applied.”<sup>13</sup> They argue that BNSF assumed the wrong average fuel consumption and chose the wrong HDF starting point at which the MBFSC would be assessed. In Section V, I address the specific shortcomings in the Crowley/Mulholland analyses of what the fuel surcharge “should have been;” in the following section, I identify the errors and omissions in their development of the fuel cost figures that are inputs to the regressions on which they base their “should have been” analysis, and also show the impact of correcting their recovery analysis.

Several general points about the Crowley/Mulholland analysis are in order before discussing that analysis in detail. First, both the “overcharge” and the regression analyses are

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<sup>12</sup> See BNSF WP “TDC RDM VS Exhibit 5 w Recovery.xlsx.”

<sup>13</sup> Crowley/Mulholland VS at 18.

premised on the assumption that it is valid to assess BNSF's 2005 decisions concerning the MBFSC based on data that came into existence only in subsequent years, as late as 2010. Second, Messrs. Crowley and Mulholland require a degree of precision that is a far cry from the "reasonable nexus" standard announced by the STB; they classify any mismatch between incremental fuel costs and fuel surcharge revenues as an "overcharge," and they conclude that any variation between the regression results they report and the MBFSC that BNSF actually implemented is a basis for finding BNSF's MBFSC to be an unreasonable practice. By combining a backwards-looking approach and a presumption that absolute precision in fuel surcharge design is both possible and required, Cargill and its experts effectively contend that BNSF should have been able to predict the future exactly, and that any failure to do so should result in liability and damages.

**IV. The Crowley/Mulholland Analysis Does Not Properly Account for BNSF's Fuel Costs and Results in an Erroneous Conclusion that the MBFSC Generated Excess Revenues**

As discussed above, there are serious conceptual problems with the "overcharge" analysis undertaken by Messrs. Crowley and Mulholland, in particular their assumption that the reasonableness of BNSF's surcharge should be assessed with the benefit of 20/20 hindsight. In addition to those conceptual problems, Messrs. Crowley and Mulholland based their calculations on several demonstrably improper assumptions. The collective effect of those assumptions is to create the impression that BNSF has recovered far more through its MBFSC than the incremental fuel costs it incurred. When these errors are corrected, the Crowley/Mulholland analysis does not show, even on its own faulty conceptual terms, that BNSF collected excessive revenues.

There are two components to the Crowley/Mulholland "overcharge" analysis. The first involves the calculation of the revenue collected by BNSF under its MBFSC. The second

component involves the calculation of the total fuel costs that BNSF incurs, and then the calculation of the “incremental” portion of those costs.

**A. Fuel-Surcharge Revenues for MBFSC Shipments**

Messrs. Crowley and Mulholland rely upon the BNSF fuel-surcharge revenues contained in the traffic file of 2006-2010 MBFSC shipments produced to Cargill in discovery. They exclude the surcharge amounts paid to BNSF’s interline partners, other Class I carriers and shortline or handling carriers.<sup>14</sup> I rely upon the same revenue figures in my restatement of the Crowley/Mulholland analysis.

**B. Fuel Costs for MBFSC Shipments**

**1. Overview of Crowley/Mulholland Cost Calculations**

Messrs. Crowley and Mulholland present at pages 10 through 15 of their VS the steps they followed to generate their “incremental” fuel cost results. Generally, they sought to assign BNSF URCS variable locomotive fuel costs to individual shipments that were subject to the MBFSC, adjust those annual URCS costs to reflect BNSF’s fuel cost levels in each month, and identify the portion of those monthly costs that was above the \$0.73 per-gallon that they considered “implicit in [BNSF’s] base rates.”<sup>15</sup> I note that Messrs Crowley and Mulholland started with the STB’s regulatory costing model to identify the fuel costs associated with the MBFSC shipments. I agree that the URCS model can be used to determine the variable portion of BNSF’s locomotive fuel costs – and, accordingly, the variable amount of fuel consumed, in gallons – for individual shipments. As BNSF’s locomotive fuel costs are included among the expenses reported in the Annual Report Form R-1 and used as an input to URCS, the fuel portion that is embedded in the URCS unit costs can be identified from the detailed URCS worktables,

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<sup>14</sup> Crowley/Mulholland VS at 6-7 (“The surcharges reflected only the portion of the movements over the BNSF system.”)

<sup>15</sup> See, e.g., Crowley/Mulholland VS at 10-15.

which are publicly available for download from the STB's website.<sup>16</sup> Messrs. Crowley and Mulholland isolated the portion of certain URCS variable unit costs and of the URCS "make-whole" adjustments that apply to single-car and multiple-car shipments, and used those as the basis for their calculation of the fuel costs of the MBFSC shipments. They calculated the "total" fuel costs of the shipments (which they also refer to as the "actual fuel cost"), and also calculated the "base fuel cost" of the shipments, which they identified as the "fuel cost at strike price fuel cost levels."<sup>17</sup> Messrs. Crowley and Mulholland subtracted the base fuel cost from the total fuel cost to determine the "incremental fuel costs" of the MBFSC shipments, and then compared the incremental costs that they calculated to the fuel-surcharge revenues that BNSF collected.<sup>18</sup>

It is critical to note that the URCS unit costs that Messrs. Crowley and Mulholland used do not represent BNSF's total fuel costs associated with the traffic covered by the MBFSC. As a result, the Crowley/Mulholland analysis understated considerably the total fuel costs associated with the MBFSC shipments. There are two different components of BNSF's fuel cost that their analysis excluded. First, URCS unit costs represent only the variable portion of locomotive fuel expense. As explained in more detail in the following section, the URCS costing model uses as an input BNSF's total locomotive fuel expense, determines the portion that is considered variable, and then uses that variable amount to calculate the unit costs. By using only the variable portion, Messrs. Crowley and Mulholland fail to account for the total locomotive fuel costs reported in the R-1, which BNSF should be entitled to recover through the MBFSC.

Second, the URCS unit costs that Messrs. Crowley and Mulholland used reflect only locomotive fuel costs, and do not account for the significant non-locomotive fuel costs that

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<sup>16</sup> See BNSF URCS Worktables D3 and D4. <http://www.stb.dot.gov/stb/industry/urcs.html>

<sup>17</sup> Crowley/Mulholland VS at 15.

<sup>18</sup> Crowley/Mulholland VS at 15-16.

BNSF incurs. In the Ex Parte No. 661 *Rail Fuel Surcharges* proceeding, the STB recognized the importance of accounting for these expenses when it required that carriers report total fuel costs, including non-locomotive fuel expenses in addition to the locomotive fuel expense. Messrs. Crowley and Mulholland include none of BNSF's non-locomotive fuel costs in their calculation of the fuel costs associated with the MBFSC shipments.

Finally, in addition to excluding these two significant fuel expense items, Messrs. Crowley and Mulholland also committed errors in performing their URCS calculations. Specifically, they improperly ignored the STB's prohibition of movement-specific adjustments to URCS variable costs, and as a result generated flawed and inconsistent variable costs for the MBFSC shipments. In addition to violating the STB's rules, their piecemeal adjustments are based on incorrect assumptions, and do not properly reflect the costs of the MBFSC shipments. I focus next on the specific shortcomings of their adjusted URCS calculations, and then address Crowley/Mulholland's failure to account for BNSF's total fuel costs.

**2. The Crowley/Mulholland Analysis Makes Piecemeal Adjustments to URCS that are Prohibited by the STB and Understate BNSF's Variable Fuel Costs for the MBFSC Shipments**

a. Crowley/Mulholland's Movement-Specific Adjustments Are Not Permitted Under the STB's Rules

Messrs. Crowley and Mulholland calculate the variable fuel costs associated with the MBFSC shipments based on costs that they extracted from the STB's URCS model.<sup>19</sup> When calculating the URCS costs for a shipment, the standard approach is to multiply the number of URCS unit costs by the corresponding number of service units, or amount of activity associated with that specific shipment, such as the number of ton-miles, the number of switching events, etc. This multiplication of unit costs and service units is performed in the URCS Phase III or

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<sup>19</sup> See Cargill Open. at 21.

batch costing runs, and the calculations can also be performed outside the URCS costing model. Rather than follow a standard approach to costing movements based on URCS, however, Messrs. Crowley and Mulholland undertook a series of calculations that made numerous “movement-specific” adjustments to the URCS costs. Instead of determining BNSF’s fuel costs using the standard input parameters and costing assumptions within the URCS model, Messrs. Crowley and Mulholland constructed a piecemeal build-up of the costs using numerous modifications to the standard input parameters and URCS costing assumptions. Their description of the process that they created spans many pages of their VS, and includes 10 detailed steps for determining their movement inputs and a separate 14-step approach to assign the URCS fuel costs.<sup>20</sup>

The STB has instructed parties to proceedings in which URCS is used not to make movement-specific adjustments to URCS, but to rely only on the standard input parameters and costing assumptions within the URCS model. In its *Major Issues* rulemaking proceeding, the STB concluded “we will limit the parties to the use of the unadjusted URCS Phase III movement costing program and disallow movement specific adjustments other than those automatically made by URCS.”<sup>21</sup> The STB’s ban on movement-specific adjustments stemmed in large part from a concern about the potential distortion in cost determinations resulting from the selective nature of such adjustments:

There are several underpinnings to this conclusion. First, as a matter of econometric theory, piecemeal or incomplete adjustments to URCS are suspect. There are hundreds of individual expense categories that URCS uses to estimate the variable cost of a movement and the parties do not seek to adjust all of them. Indeed, many of the expense categories could not be changed, because movement-specific information is unavailable. Yet selective replacement of

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<sup>20</sup> Crowley/Mulholland VS at 10-15.

<sup>21</sup> *Major Issues in Rail Rate Cases*, STB Ex Parte No. 657 (Sub-No. 1), slip op. at 60 (served Oct. 30, 2006) (“*Major Issues*”).

system-average costs with movement-specific costs may bias the entire analysis, rendering the modified URCS output unreliable.<sup>22</sup>

In the recent *Entergy* case, the STB re-affirmed its position that parties must not use movement-specific adjustment in making analyses based on URCS:

We do not, however, accept UP's locomotive and private rental car adjustments. These are precisely the kind of selective movement-specific adjustments to URCS that undermine the reliability of the costing model. *Major Issues in Rail Rate Cases*, EP 657 (Sub-No. 1), slip op. at 50-51 (STB served Oct. 30, 2006) (noting that piecemeal movement-specific adjustments were expensive and were not leading to a more accurate result than using the system-average figures). Just as we prohibit such piecemeal adjustments to URCS in rate cases, so too shall we prohibit such adjustments to URCS in § 10705 complaints.<sup>23</sup>

Mr. Crowley appeared as a witness for Complainants in the *Entergy* case, and he challenged UP's movement-specific adjustments as "unacceptable," "outside of what the STB has determined appropriate," and a "selective adjustment of system average cost [that] has resulted in a bias in its analysis, rendering it unreliable."<sup>24</sup>

Messrs. Crowley and Mulholland make clear that they rely upon numerous movement-specific adjustments, as their process description includes references to "the movement-specific locomotive count," "the movement-specific trainload gross trailing tonnage," and "movement-specific fuel cost per GTM,"<sup>25</sup> among other improper adjustments. As described below, many of their adjustments are precisely the sort of "selective replacement" or "piecemeal adjustments" which led the STB to reject the use of movement-specific adjustments.

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<sup>22</sup> *Major Issues*, slip op. at 51-52.

<sup>23</sup> *Entergy Arkansas, Inc. v. Union Pacific Railroad Co.*, STB Docket No. 42104, slip op. at 13 (served Mar. 15, 2011).

<sup>24</sup> Redacted Public Version of Rebuttal Verified Statement of Thomas D. Crowley, filed July 9, 2010, at 12-13 (included as BNSF WP "TDC Entergy Rebuttal.pdf").

<sup>25</sup> Crowley/Mulholland VS at 12-13.

- b. Crowley/Mulholland's "Movement-Specific Fuel Cost per GTM" Represents an Improper Adjustment, Ignores Empty Movements, and Fails to Account for the Higher Fuel Costs of Longer and Heavier Trains

In the very first step of their 14-step description of the fuel cost calculation for the MBFSC shipments, Messrs. Crowley and Mulholland acknowledge that they make a movement-specific adjustment to the fuel costs allocated by locomotive unit-miles within URCS.<sup>26</sup> That adjustment over-rides the manner by which URCS locomotive fuel costs are recovered through the locomotive unit-miles that are assigned to a shipment, and it produces counter-intuitive results. Before describing the shortcomings in their implementation of the adjustment, I briefly describe how URCS fuel costs are assigned and the manner in which they were manipulated by Messrs. Crowley and Mulholland.

- (1) URCS Locomotive Fuel Costs and the Crowley/Mulholland Adjustment

In the URCS model, locomotive fuel costs are assumed to be a function of the weight of the shipment, the number of locomotives required for the shipment, and the amount of switching that the shipment receives. To implement these assumptions, URCS allocates BNSF's variable locomotive fuel costs among separate unit costs associated with gross ton-miles ("GTM"), locomotive unit-miles ("LUM"), and switch-engine minutes ("SEM").<sup>27</sup>

The fuel costs assigned to GTM<sup>28</sup> move linearly with the weight of the shipment being costed. The more tons of the shipment, the higher the fuel costs.

The fuel costs assigned to LUM – where *the majority* of BNSF's locomotive fuel costs

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<sup>26</sup> Crowley/Mulholland VS at 12.

<sup>27</sup> See, e.g., Crowley/Mulholland WP "BN 2009.DAT," URCS Worktable D3 Line 164 and Worktable D4 Line 135.

<sup>28</sup> In 2009, 45% of BNSF's variable train fuel costs were assigned to gross ton-miles. BNSF WP "BN 2009.DAT," URCS Worktable D3 Line 164.

are allocated within URCS<sup>29</sup> – are assigned to shipments based on the average number of locomotives for the train types used by each shipment.<sup>30</sup> In addition, when calculating costs for unit trains,<sup>31</sup> the URCS model assigns the LUM-based costs based on the relationship between the weight of the unit train being costed, and the weight of the average unit train. The more tons of the shipment, the higher the fuel costs assigned to the shipment. In other words, the more tons of the train, the higher the fuel costs assigned to the train.

A similar assignment is made when URCS costs are calculated for single-car and multiple-car shipments. For these moves, the URCS model assigns the fuel cost to each carload for each type of train, based on the relative weight of the carload being costed compared to the average weight of way trains and of through trains. The more tons of the shipment, the higher the fuel costs assigned to the shipment. And, similar to the result for unit trains, the more tons of the train, the higher the fuel costs assigned to the train.<sup>32</sup>

Exhibit No. 4 to the Crowley/Mulholland VS indicates that they started with the URCS unit costs per GTM, per LUM, and per SEM to calculate the fuel costs for the MBFSC shipments, but that they did not follow the standard URCS costing approach of multiplying the URCS cost per LUM by the locomotive unit-miles assigned to a shipment. Instead, Messrs. Crowley and Mulholland transformed the URCS unit cost per LUM to a cost per GTM, and

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<sup>29</sup> In 2009, 55% of BNSF's variable train fuel costs were assigned to locomotive unit-miles. BNSF WP "BN 2009.DAT," URCS Worktable D3 Line 164.

<sup>30</sup> The URCS costing model develops average locomotive consist sizes and train weights separately for way trains, through trains, and unit trains, based on statistics reported in Schedule 755 to the R-1.

<sup>31</sup> The URCS costing model incorporates different assumptions for shipments based on the number of carloads in the shipment. Shipments of fewer than 50 carloads are treated as either single-car or multiple-car shipments, and shipments of 50 cars or more are unit trains.

<sup>32</sup> By comparing the shipment size to the average train weight, URCS assigns the same LUM-based fuel costs to shipments of the same size, regardless of the actual size of the train. As a result, a train comprised of 100 single-car shipments will be assigned twice the fuel costs of a train comprised of 50 single-car shipments.

developed URCS variable locomotive fuel costs based only on gross ton-miles and switch engine-minutes. Specifically, they multiplied the URCS cost per LUM by the average number of locomotives that they calculated for the trains that handled the carload, and divided that number by the average gross tons of the trains. As Figure 1 below shows, this results in a cost per GTM, not LUM, which they then multiplied by the number of GTMs of the shipment. Their adjustment ignores the manner by which the majority of BNSF’s locomotive fuel costs are assigned to shipments in URCS, and produces results that are at odds with those generated by the standard URCS approach.

**Figure 1**  
**Crowley/Mulholland Adjustment to Convert URCS Fuel Costs per LUM to GTM**

<u>Variable \$</u> LUM	x	<u>Locos</u> Train <u>Gross Tons</u> Train	=	<u>Variable \$</u> <del>Locos</del> x Miles	x	<del>Locos</del> Train	x	<del>Train</del> Gross Tons	=	<u>Variable \$</u> GTM
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(2) Errors in Implementation of Crowley/Mulholland Adjustment to Transform LUM-Based Fuel Costs

In changing the way by which URCS locomotive costs are assigned, Messrs. Crowley and Mulholland commit three fundamental errors:

1. They fail to consider the trains that are used for empty movements.
  
2. They make a piecemeal adjustment to the service units of the shipment, without addressing the associated impact on the fuel consumption or unit costs resulting from the changed service units. As a result, their calculated costs contradict the logical outcome that heavier shipments incur higher fuel costs, which is reflected in the standard URCS approach.
  
3. They fail to account properly for the different types of trains that are used to move the traffic and ignore the way-train component of URCS system-average costs.

I discuss each of these flaws in turn. First, Messrs. Crowley and Mulholland calculate the average train weight and average number of locomotives for the MBFSC shipments from the BNSF waybill records.<sup>33</sup> Because the waybill records cover only the loaded shipment, Crowley/Mulholland's averages are based on the loaded portion of the movement only. When system-average URCS costs are calculated, the average train weights used to assign locomotive fuel costs reflect both loaded and empty movements. The trains that handle many of the MBFSC shipments in the loaded direction are much heavier than the trains that carry the cars returning empty.<sup>34</sup> As a result, the gross-tonnage figures that Messrs. Crowley and Mulholland use as a movement-specific adjustment overstate the average weight of the trains that are used to handle the round-trip movement. Overstatements in the gross tons assume efficiencies that do not exist for the round trip, and produce understatements in the URCS costs that Messrs. Crowley and Mulholland assign to the MBFSC shipments. This oversight alone renders their adjustment invalid.

Second, it is critical to note that the conversion sponsored by Messrs. Crowley and Mulholland is an improper piecemeal adjustment to the service units of the shipment that does not consider the impact on the fuel consumption or unit costs. As described above, URCS costs are allocated based on a system-average train weight that results in the sensible outcome that heavier trains are assigned higher fuel costs. By contrast, Messrs. Crowley and Mulholland created an adjustment that assigns the same *system-average* fuel costs to each train – across all

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<sup>33</sup> Exhibit No. 4 to Crowley/Mulholland VS, page 2, Lines 136 and 135, respectively.

<sup>34</sup> For example, Exhibit No. 4 to Crowley/Mulholland VS illustrates their fuel cost calculations for two MBFSC movements, a unit-train shipment and a single-car shipment. In calculating the fuel costs for the single-car shipment (denoted "Example 2" in the Exhibit), Messrs. Crowley and Mulholland substitute an average train-weight of { } gross tons – calculated for the loaded portion of the movement – for the system-average for through trains of 5,407 gross tons – which reflects both loaded and empty movements. Exhibit No. 4, Lines 136 and 187.

train sizes – but then spreads those costs based on a *movement-specific adjustment* that uses the actual size of the train. The Crowley/Mulholland approach creates an inconsistency between the service units and the unit cost, an inconsistency that is avoided by the system-average URCS approach that consistently uses the average train weight and the average unit cost.<sup>35</sup>

I confirmed the inappropriateness of the Crowley/Mulholland approach by reviewing the average train weights, locomotive counts, and locomotive horsepower that they calculated for the MBFSC traffic.<sup>36</sup> I compiled the records for all MBFSC traffic handled in single-car and multiple-car shipments,<sup>37</sup> which comprise a majority of the MBFSC traffic. In order to focus on the impact of the Crowley/Mulholland unit-cost conversion, I isolated a subset of carloads with the same number of locomotives (3.0), and grouped those records into quartiles based on the average train weight.<sup>38</sup>

Table 3 below summarizes the average train weight (in gross tons) and average horsepower for the lowest and highest quartiles, and presents the corresponding horsepower per trailing ton ratio. The table shows that the trains in the highest quartile have an average weight of { } gross tons, more than twice that of the trains in the lowest quartile ({ }). As these trains have the same number of locomotives, it is inconceivable that the significantly

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<sup>35</sup> As mentioned above, the Crowley/Mulholland adjustment is at odds with the manner in which the URCS model assigns locomotive costs to unit-train shipments. For unit trains, the train being costed is compared to the system-average unit-train, and the costs are proportionally increased for heavier trains, or decreased for lighter trains. The Crowley/Mulholland adjustment over-rides the URCS relationship that fuel consumption changes linearly across unit-train sizes.

<sup>36</sup> See Exhibit No. 4 to Crowley/Mulholland VS, page 2 and Crowley/Mulholland WP SQL Server database files “TrafficAvgTon,” “TrafficAvgLoco,” and “TrafficAvgHP.”

<sup>37</sup> The Crowley/Mulholland piecemeal locomotive-cost adjustment is more distortive to the URCS costs for single-car and multiple-car shipments.

<sup>38</sup> In other words, I sorted by the average gross tons the MBFSC records that were single-car and multiple-car shipments for which Messrs. Crowley and Mulholland calculated 3.0 locomotives, and separated them into four groups with the same number of records, summarized in BNSF WP “Horsepower Analysis.xlsx.”

heavier trains would have *the same* total locomotive fuel costs as the lighter trains, as determined by the Crowley/Mulholland adjustment.<sup>39</sup> Confirming the notion that heavier trains command higher horsepower locomotives, the loaded movement detail in the BNSF waybill records indicates that the 3.0 locomotives on the heavier trains average 18% more horsepower, {  
 }. As a result of powering more than twice the tonnage with only 18% more horsepower, however, the horsepower to trailing-ton ratio (“HP/TT”) for the heavier trains is 0.94, vs. 2.10 for the lighter trains. To assign *the same fuel costs* to locomotives that are responsible for powering *more than twice as many tons* is illogical.<sup>40</sup>

**Table 3**  
**Average Train Weight and Horsepower for MBFSC Traffic**  
**in Single-Car and Multiple-Car Shipments with 3.0 Locomotives**

	Average Gross Tons per Train	Average HP per Locomotive	Average HP/TT
Lowest Quartile	{ }	{ }	2.10
Highest Quartile	{ }	{ }	0.94
Difference	164%	18%	-55%

Source: BNSF WP “Horsepower Analysis.xlsx”

I next demonstrate the impact of the Crowley/Mulholland adjustment for an illustrative move. Table 4 below presents the LUM portion of locomotive fuel costs that are assigned under the system-average URCS approach and using the Crowley/Mulholland adjustment for an example carload and for three different-sized trains that handle that carload. In addition to the average trains in the lowest and highest quartile summarized in Table 3 above, I also include the

<sup>39</sup> As the Crowley/Mulholland adjustment serves to assign costs in inverse proportion with the gross tons of the train, each car on a train with twice the total tonnage would be assigned one-half the cost assigned to each car on a lighter train. This indicates that the Crowley/Mulholland approach assigns the same total fuel costs to all trains that have the same number of locomotives, regardless of their weight – a result that is confirmed by the examples shown in Table 4 below.

<sup>40</sup> This showing highlights the problems with a piecemeal adjustment that incorporates train sizes without consideration for the impact on fuel consumption. As discussed in the prior section, the STB rejected similar attempts to make movement-specific adjustments to locomotive costs in the *Entergy* case, expressing concerns about their “selective” nature. *Entergy* slip op. at 13.

results for the median train size of { } gross tons.<sup>41</sup> For this illustration, I used the same movement parameters for the “Example 2” shipment that Messrs. Crowley and Mulholland included in Exhibit No. 4 to their VS: 510 loaded miles, 105 net tons, 33 tare tons, and a 2.11 empty return ratio (*i.e.*, 1.11 empty miles for every loaded mile).

Based on these inputs, this carload is assigned \$131 of LUM-based variable locomotive fuel costs under system-average URCS,<sup>42</sup> regardless of the overall weight of the train by which it was handled. As a result, as shown in Table 4 below, the total variable LUM fuel costs assigned by URCS to a train vary depending upon the total weight of the train: heavier trains are assigned *more* variable locomotive fuel costs. By contrast, the Crowley/Mulholland approach assigns the carload different costs, depending upon the weight of the train. As shown in Table 4, carloads on heavier trains receive a lower assignment of costs than carloads on lighter trains. On a train basis, however, the Crowley Mulholland approach assigns the same costs to all trains that have the same number of locomotives, regardless of the train’s overall weight.

Table 4 below shows that only shipments on the smallest trains are assigned variable locomotive fuel costs under the Crowley/Mulholland approach at similar levels to the URCS system-average. The results for the average train in the smallest quartile ( { } gross tons) are nearly equal to those produced by system-average calculations. For MBFSC shipments on the average train as calculated by Messrs. Crowley and Mulholland – { } gross tons<sup>43</sup> – their adjustment assigns costs per carload that are *38 percent below* system-average URCS. Thus, for

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<sup>41</sup> This is the median train size for single-car and multiple-car MBFSC shipments that Messrs. Crowley and Mulholland calculated were powered by trains averaging 3.0 locomotives.

<sup>42</sup> BNSF WP “LUM Fuel Cost Example.xls.” The URCS variable locomotive fuel costs used for these calculations are from the STB 2009 URCS.

<sup>43</sup> The median train size from the Crowley/Mulholland analysis is { } greater than the BNSF through train average of 5,677 tons from the 2009 URCS, highlighting the bias resulting from Crowley/Mulholland’s use of the train weights for loaded movements only, mentioned above.

any MBFSC shipment on a train with above-average tonnage, Messrs. Crowley and Mulholland would determine that the variable locomotive fuel costs would be *at least 38 percent below* system-average, as their adjustment is inversely proportional with the gross tons of the train, as shown in Figure 1 above. Of course, the impact of the adjustment is even more dramatic for most of the trains with above-average tonnage. As an example, the average train in the largest quartile ( { } gross tons) would be assigned *62-percent lower costs per carload* under the Crowley/Mulholland adjustment, *less than one-half* the URCS system-average level. The results for the illustrative movements summarized in Table 4 help confirm that the Crowley/Mulholland adjustment assigns constant variable locomotive fuel costs across trains, regardless of their size, which is illogical and directly contradicts the standard URCS assignment.

**Table 4  
Illustration of the Assignment of LUM-Based Locomotive Fuel Costs  
Under URCS System-Average Approach and Crowley/Mulholland Adjustment**

	Average Gross Tons per Train	Variable LUM Fuel per Carload		Variable LUM Fuel per Train		Impact of Cargill Adjustment
		URCS System-Average	Cargill Adjustment	URCS System-Average	Cargill Adjustment	
Lowest Quartile	{ }	\$131	\$131	\$8,084	\$8,077	0%
Median	{ }	\$131	\$82	\$13,028	\$8,077	-38%
Highest Quartile	{ }	\$131	\$50	\$21,361	\$8,077	-62%

Source: BNSF WP "LUM Fuel Cost Example.xls"

Finally, Messrs. Crowley and Mulholland fail to account properly for the different types of trains that are used to move the traffic, and ignore the way-train component of URCS system-average costs. For single-car and multiple-car shipments, URCS distinguishes between the relatively higher costs of the trains that are used to originate or terminate the traffic, referred to

as “way trains,” and through trains.<sup>44</sup> Messrs. Crowley and Mulholland, however, lump together these different types of trains for purposes of calculating their average train characteristics. Further, they calculate the *simple* average of the trains that were used to handle the loaded movement.<sup>45</sup> If a carload was originated by a local train that operated 100 miles to a gathering point, and from there was moved by a merchandise general freight train 400 miles to the carload’s destination, the Crowley/Mulholland approach weights these two trains equally – despite the fact that one represents a much greater portion of the train miles and locomotive unit-miles associated with the shipment.<sup>46</sup>

The BNSF waybill traffic records indicate that more loaded movements of single-car and multiple-car shipments subject to the MBFSC were originated by BNSF’s local or road switcher trains (train types { } respectively) than by { }.<sup>47</sup> Further, { } of all MBFSC single-car and multiple-car shipments were handled by BNSF’s local or road switcher trains, with more traffic handled by { }.<sup>48</sup> The broad mix of different train types and handling by multiple trains confirms the “system-average” nature by which most of the MBFSC single-car and multiple-car shipments are operated. The adjustments put forth by Messrs. Crowley and

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<sup>44</sup> The STB’s URCS User Manual specifically notes: “The separate treatment of train services is necessary because of the substantial difference in both the average number of locomotives and gross trailing tons per train between way and through train service.” Railroad Cost Program at 8. <http://www.stb.dot.gov/stb/docs/URCS/URCS%20User%20Manual.pdf>

<sup>45</sup> See Exhibit No. 4 to Crowley/Mulholland VS. The “Example 2” movement was handled by { } trains in the loaded direction, for which Messrs. Crowley and Mulholland determined simple averages of { } gross tons and { } locomotives.

<sup>46</sup> The STB’s URCS User Manual states: “The initial step in the costing process is the calculation of the number of miles by type of train.” Railroad Cost Program at 6.

<sup>47</sup> BNSF WP “Train Symbol Analysis.xlsx.”

<sup>48</sup> BNSF WP “Train Symbol Analysis.xlsx.”

Mulholland are unfounded and do not accurately reflect the profile of the trains or costs for operating even the loaded movement.<sup>49</sup>

(3) Use of System-Average Costs

In order to determine properly the movement-specific costs, the specific locomotive types, horsepower, and consumption would have to be considered – and such an inquiry would likely indicate that the larger trains would have consumed more fuel, and thus should be assigned more locomotive fuel costs, not less. But the STB chose to avoid the complexity of such an analysis and ordered parties in regulatory proceedings to rely upon system-average costs, which were designed to be applied across shipments, and to avoid bias and misuse.

Crowley/Mulholland’s attempt to spread the largest portion of locomotive fuel costs based on the tonnage of the overall train, without recognizing that higher-tonnage shipments require more power – and thus consume more fuel – is “precisely the kind of selective movement-specific adjustment to URCS that undermines the reliability of the costing model,” and biases the results.

c. Crowley/Mulholland’s Movement-Specific Adjustment to I&I Switching Understates BNSF’s Switching Costs

In addition to adjusting the LUM-based fuel costs, Messrs. Crowley and Mulholland improperly substitute for the system-average a specific number of switch events that the MBFSC traffic receives when changed from one train to another en route.<sup>50</sup> This adjustment suffers from the same flaw as their improper LUM-to-GTM cost conversion explained above: they make an adjustment to the service units associated with a shipment so that those service units no longer reflect the system average, but continue to use the system-average unit costs. By multiplying the

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<sup>49</sup> Again, Crowley/Mulholland’s reliance on the loaded movement detail from the BNSF waybill traffic records biases their cost results, as their approach fails to consider that different train operations are used to operate in the empty direction.

<sup>50</sup> Crowley/Mulholland VS at 14.

movement-specific number of events by a system-average cost that is developed based on different assumptions, their adjustment fails to account properly for BNSF's switching costs.

In the URCS model, switching costs are allocated across three types of events: 1) when cars are picked up from or delivered to local origins and destinations (referred to as "industry" switching); 2) when cars are forwarded to or delivered from other carriers ("interchange" switching); and 3) when cars are switched between trains or switch locations within a train (inter-train and intra-train, or "I&I" switching). In the URCS costing model, I&I switch events are assumed to occur every 200 miles for carload traffic, regardless of the frequency with which a carrier actually performs such switching.<sup>51</sup> As a result, I&I switching costs must be assigned to specific movements assuming the same frequency.<sup>52</sup> If it were determined that the actual I&I switching events occurred with longer intervals in between, then an increase to the unit cost would be required in order for the railroad to recover fully its costs.<sup>53</sup> Applying the system-average I&I switching unit cost<sup>54</sup> – which is calculated in the URCS model assuming a switch event occurs every 200 miles – to a different number of events creates a disconnect in the assignment of URCS costs. When the two costing inputs are inconsistent, as they are in the adjustment sponsored by Messrs. Crowley and Mulholland, the results fail to account properly for BNSF's total switching expense. In order to avoid this disconnect introduced by a piecemeal

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<sup>51</sup> The STB's URCS User Manual states: "Miles between I and I Switch – The average distance between intratrain and intertrain switch is 200 miles." (Railroad Cost Program at 22); and URCS Worktable A1, Lines 561-576.

<sup>52</sup> In the URCS costing model, unit trains are assumed to require no I&I switching, and those amounts are re-distributed to single-car and multiple-car shipments through the make-whole adjustment. As a result, the invalid adjustment that Messrs. Crowley and Mulholland performed here applies only to the single-car and multiple-car shipments that were subject to the MBFSC. See Crowley/Mulholland VS at 10.

<sup>53</sup> In other words, if it were determined that BNSF actually performed I&I switching every 400 miles, instead of 200 miles, then the URCS unit cost would have to be increased in order to recover the same total expense at the lower frequency the activity would be assumed to occur.

<sup>54</sup> Crowley/Mulholland VS at 14.

substitution to the frequency, without changing the associated unit cost, the unadjusted system-average costs should be used.<sup>55</sup>

d. Correctly Calculating URCS System-Average Costs Produces Higher “Incremental” Fuel Costs for the MBFSC Shipments than those Based on Crowley/Mulholland’s Flawed Movement-Specific Adjustments

Table 5 below summarizes the impact of correctly calculating URCS system-average costs for the MBFSC shipments. Changing only Crowley/Mulholland’s improper use of movement-specific adjustments – and, for the purposes of this comparison, keeping the Crowley/Mulholland inputs for monthly fuel prices per gallon – results in an overall increase to their “above-strike” fuel costs of \$120 million for the 2006-2010 period.<sup>56</sup> To perform this calculation, I first determined the fuel portion of the system-average URCS variable costs assigned to each of the MBFSC shipments based on the nine standard costing inputs – *e.g.*, traffic class, loaded miles – as identified by Messrs. Crowley and Mulholland. I then determined the number of gallons associated with those variable costs, calculated the “base fuel cost” at \$0.73 per gallon, and used the Crowley/Mulholland monthly fuel prices to determine the incremental fuel costs shown in Table 5.

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<sup>55</sup> This adjustment also suffers from the same criticism I presented above for the locomotive-fuel adjustment: Messrs. Crowley and Mulholland base their costs on the loaded movement only, assuming that the same number of trains would be required to return the empty cars to the location of their next loading. By contrast, as the URCS model spreads I&I switching costs evenly across loaded and empty miles, the bias in the Crowley/Mulholland approach does not exist when system-average costs are calculated.

<sup>56</sup> BNSF WP “60-Month MBFSC Fuel Recovery LEPA Process with Standard URCS.xlsx.” In order to calculate 2010 URCS costs, I constructed a preliminary set of URCS unit costs based on the R-1 and other publicly available information. I include in my workpapers a working version of the E-table. See BNSF WP “2010 Preliminary FTI BNSF URCS.xml.”

**Table 5  
Cargill “Above-Strike” Portion of  
URCS Variable Locomotive Fuel Costs, MBFSC Traffic**

	Cargill Calculations, Incorporating Movement- Specific Adjustments	System-Average URCS Calculations, with Cargill Cost Inputs	Difference
2006-2010 Total	{ }	{ }	(\$120,354,000)

Source: BNSF WP “60-Month MBFSC Fuel Recovery LEPA Process with Standard URCS.xlsx”

**3. Failure to Include All Fuel Costs**

As described above, Crowley/Mulholland’s improper movement-specific adjustments should be rejected. An appropriate assignment of fuel costs can be made to individual MBFSC shipments using the standard, system-average URCS methodology. These corrected results, however, still will not reflect BNSF’s total fuel costs. While the URCS costing model can provide the basis for assigning fuel costs to individual shipments, the costs that are assigned represent only a subset of the total fuel costs that BNSF reports to the STB in its annual R-1 report and in its quarterly fuel surcharge reports. As a fuel-surcharge mechanism is intended to recover all fuel costs, and not just the portion of locomotive fuel costs considered variable by URCS, the fuel costs that are calculated using URCS must be increased to account for the fuel expenses that are not assigned in URCS. Said differently, it is invalid to compare the total revenue collected under the MBFSC to an estimate of incremental costs that does not consider all fuel costs, as Messrs. Crowley and Mulholland have done.

a. Total Locomotive Fuel Costs Reported in the Annual R-1

First, as indicated above, the URCS unit costs that Messrs. Crowley and Mulholland used to calculate BNSF’s fuel costs include only the variable portion of locomotive fuel costs assigned by URCS, and not the total locomotive fuel costs that BNSF incurred in each year. The URCS costing model uses as an input the total expense amounts reported in Schedule 410 to the R-1, such as locomotive fuel, but calculates variable unit costs that are based on a lesser amount. The

URCS model identifies a portion of the expenses as variable, and divides only those variable costs by the corresponding service units (*e.g.*, gross ton-miles) to generate the fuel unit costs.<sup>57</sup> By relying only on these URCS variable unit costs (which are miscalculated as I explained above),<sup>58</sup> the Crowley/Mulholland analysis excludes the non-variable portion of BNSF's locomotive fuel costs.

Table 6 below shows the variability factors calculated by the URCS model and applied to BNSF's locomotive fuel costs in each year 2006-2010.<sup>59</sup> As shown in the table, there are separate variabilities for fuel consumed in train operations and fuel consumed in yard operations. As BNSF's handling of the MBFSC shipments requires both train operations and yard operations, there are locomotive costs associated with the MBFSC shipments that are not assigned in URCS because they are not considered to be "variable" costs. BNSF incurs these costs, however, and they should be incorporated in the cost analysis for comparison to the fuel-surcharge revenues.

**Table 6**  
**URCS Locomotive Fuel Variability Factors,**  
**BNSF System-Wide**

	Train Operations	Yard Operations
2006	96.6%	67.0%
2007	96.4%	69.3%
2008	96.4%	68.9%
2009	95.9%	64.3%
2010	96.1%	65.5%

Source: BNSF WP "URCS Inputs.xlsx"

Table 7 below illustrates the impact of the assignment in URCS of only the variable portion of locomotive fuel costs for a specific year (2008). In that year, total BNSF locomotive

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<sup>57</sup> See, *e.g.*, BNSF WP "BN 2009.DAT," URCS Regressions #5 and #10, Worktable D3 Line 164 and Worktable D4 Line 135.

<sup>58</sup> Exhibit No. 4 to Crowley/Mulholland VS, page 3.

<sup>59</sup> BNSF 2006-2010 URCS, Worktable D3 Line 164 and Worktable D4 Line 135.

fuel costs reported in the R-1 were \$4.47 billion. Of that total, \$4.30 billion was reported for locomotives in train operations, and \$166 million for locomotives in yard operations. The variability factors shown in Table 6 above are applied to these total expenses in the URCS worktables, and the resulting product – the variable portion – is then used to generate the unit costs. The below table indicates that by including only the variable portion, there are \$208 million in locomotive fuel costs that BNSF incurred in 2008 that are not assigned by URCS. These expenses must be considered in determining BNSF’s total fuel costs associated with the MBFSC shipments.

**Table 7  
2008 URCS Locomotive Fuel Costs, BNSF System-Wide**

	R-1 Reported	URCS Variable Portion	Difference	Portion Not Assigned in URCS	Required Increase to Variable Portion <sup>60</sup>
Train Operations	\$4,301,493,000	\$4,145,535,000	\$155,958,000	3.6%	3.8%
Yard Operations	\$165,734,000	\$114,175,000	\$51,559,000	31.1%	45.2%
Total	\$4,467,227,000	\$4,259,710,000	\$207,517,000	4.6%	4.9%

To correct the Crowley/Mulholland analysis, I incorporate the total locomotive fuel costs that BNSF incurs system-wide, and not just the portion considered variable by the URCS model.<sup>61</sup> I start with the variable locomotive fuel costs that are output from the URCS analysis, which are calculated separately for train operations and for yard operations. These are the same system-average URCS costs that I calculated in correcting the Crowley/Mulholland movement-specific URCS costs, as described above. I increase each of those costs to account for the

<sup>60</sup> The increase required to account for the total locomotive fuel expense is based on the inverse of the URCS variability factors.  $1 / 0.964 = 1.038$ , or a 3.8% increase;  $1 / 0.689 = 1.452$ , or a 45.2% increase.

<sup>61</sup> BNSF WP “URCS Locomotive Fuel Costs.xlsx,” tab “URCS\_Loco\_Fuel\_Costs.”

amount not assigned by URCS, by dividing the variable cost results by the corresponding variability factor. For example, for the 2008 URCS outputs, an increase of 3.8 percent is required to the variable locomotive fuel in train operations, and an increase of 45.2 percent is required to the variable locomotive fuel in yard operations. The greater increase for the cost of fuel consumed in yard operations reflects the fact that a much lower portion of that expense is included in the URCS variable results. These increases to the URCS results are necessary in order to develop costs that correspond to the total locomotive fuel expense that BNSF reports in the R-1.

b. Total Fuel Expenses Reported in the Quarterly Fuel Surcharge Reports

In addition to the non-variable portion of locomotive fuel costs, there is another portion of BNSF's fuel costs that was not accounted for by the Crowley/Mulholland URCS analysis. The URCS unit costs that they used include only locomotive fuel, and do not reflect any of the considerable non-locomotive fuel costs that BNSF incurs each year. Messrs. Crowley and Mulholland determined fuel costs based solely on these locomotive-fuel unit costs,<sup>62</sup> and excluded BNSF's non-locomotive fuel costs from their analysis.

BNSF's operations and maintenance activities require the consumption of considerable volumes of fuel beyond that consumed by locomotives. As Mr. Anderson explains, BNSF consumes a substantial amount of fuel on vehicles other than locomotives, such as maintenance vehicles, and in other activities that support train and yard operations. Thus, it is appropriate for a rail carrier to seek to recover the incremental costs of non-locomotive fuel as well as the incremental costs of locomotive fuel through a fuel-surcharge mechanism. In conjunction with

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<sup>62</sup> Items numbered 182 through 185 of Exhibit No. 4 to Crowley/Mulholland VS, page 3, identify Line 164 of URCS Worktable D3 and Line 135 of URCS Worktable D4 as the source of the unit costs. Review of these worktables – *see, e.g.*, Crowley/Mulholland WP “BN 2009.DAT” – confirms that those lines include only locomotive fuel.

its *Fuel Surcharges* decision, the STB ordered Class I carriers to “include all other fuel used for railroad operations and maintenance, including motor vehicles and power equipment not charged to function 67-Locomotive Fuels” in their quarterly fuel cost reports, thereby explicitly recognizing the importance of this component of total fuel expense.<sup>63</sup> Table 8 below compares the annual fuel expense from the R-1 reports and from the Quarterly Fuel Surcharge Reports (“STB FSC Reports”), and indicates that BNSF incurred more than \$600 million in non-locomotive fuel costs system-wide from the fourth quarter of 2007, when it began reporting non-locomotive fuel costs to the STB, through the end of 2010.<sup>64</sup>

**Table 8**  
**Total Fuel Expense, BNSF System-Wide**

	Locomotive Fuel Expense (R-1 Reports)	Total Fuel Expense (STB FSC Reports)	Difference
4Q 2007	\$960,000,000	\$1,007,052,000	4.9%
2008	\$4,467,227,000	\$4,707,701,000	5.4%
2009	\$2,262,792,000	\$2,410,450,000	6.5%
2010	\$2,886,180,000	\$3,066,648,000	6.3%

Source: BNSF WP “Monthly Fuel Costs.xlsx” and “URCS Inputs.xlsx”

As the STB recognized by including these non-locomotive fuel costs in the railroads’ quarterly fuel-surcharge reporting obligation, BNSF is entitled to recover such fuel costs under its MBFSC. In order to reflect these non-locomotive costs, it is necessary to increase BNSF’s locomotive fuel expense calculated as I discussed above. To do this, I compared the total fuel costs and the total gallons of fuel consumed that are reported in the quarterly STB FSC reports, to those amounts reported in the SEC quarterly filings and R-1 annual reports. Based on this information, I developed separate factors for each quarter that account for the quantity and the

<sup>63</sup> See Appendix B “Quarterly Report of Fuel Cost, Consumption, and Surcharge Revenue,” *Rail Fuel Surcharges*, STB Ex Parte No. 661 (Sub.-No. 1) (served Aug. 14, 2007).

<sup>64</sup> The STB’s August 2007 decision in Ex Parte No. 661 (Sub.-No. 1) ordered railroads to commence their quarterly reporting with “reports for the 3 months beginning October 1, 2007.” Decision at 5.

price of non-locomotive fuel, which are not reflected in the URCS costs used to assign fuel costs to the shipments subject to the MBFSC. Exhibit No. BVF-2 to this VS presents the increases that are required in order to account for BNSF's total fuel expense. I applied these factors to the locomotive fuel costs for the MBFSC shipments that I calculated. As shown in the Exhibit, for the period of the 2006-2010 analysis before the reports were submitted to the STB – *i.e.*, January 2006 through September 2007 – I used the average from the earliest 12-month period of reporting – October 2007 through September 2008 – which represented a 4.1 percent increase to account for BNSF's total gallons and 0.9 percent to account for the higher cost per gallon of BNSF's non-locomotive fuel.<sup>65</sup>

#### **4. Improper Inclusion of Hedging**

The Crowley/Mulholland analysis of BNSF's incremental costs uses BNSF fuel prices that include any gains or losses from hedging activities. It makes no sense to judge whether the MBFSC bears a reasonable nexus to BNSF's fuel costs based on what is effectively an after-the-fact adjustment of BNSF's actual fuel prices to take account of separate hedging activities.

Hedging is a financial device designed to mitigate the effects of fuel price volatility, but one that yields uncertain outcomes. By hedging, one is betting that fuel will or will not exceed a specified price in the future. In some periods the bet may produce a financial gain and in others it may produce a loss. Whether a hedge will be successful and to what extent depends on many factors, including future movements of fuel prices, future market conditions, timing of the hedge, the mechanics of the hedging mechanism, and the skill of the hedger in predicting future price movements more successfully than other market participants. BNSF's historical experience with

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<sup>65</sup> BNSF WP "Monthly Fuel Costs.xlsx."

hedging has reflected that both gains and losses can be realized as a result of hedging.<sup>66</sup>

Moreover, BNSF has used different hedging mechanisms at different times and does not always engage in hedging.

Because the fuel-surcharge mechanism is not designed to track changes in fuel cost based on the inherently unpredictable outcome of hedging, it is inappropriate to assess the design of a fuel-surcharge mechanism based on whether the mechanism accurately reflects the impact of hedging. By using post-hedge fuel prices, however, Messrs. Crowley and Mulholland have implicitly assumed that the fuel-surcharge mechanism will predict the effects of hedging. Contrary to their assumption, pre-hedge fuel prices must be used in the analysis to evaluate whether the fuel-surcharge mechanism is reasonably tracking what it is supposed to track.

Messrs. Crowley and Mulholland identified the monthly BNSF fuel costs from {

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} to identify

BNSF's pre-hedge fuel cost per gallon, which are shown in Exhibit No. BVF-2.<sup>68</sup>

## **5. BNSF's MBFSC Does Not Over-Recover Fuel Costs**

### **a. Impact of Correcting Crowley/Mulholland's Fuel-Cost Recovery Analysis**

As explained above, the Crowley/Mulholland analysis suffers from multiple erroneous assumptions and adjustments, as well as critical omissions. Collectively these errors result in a significant understatement of the fuel costs of the MBFSC shipments. Based on their flawed

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<sup>66</sup> For example, BNSF's hedging activities resulted in a \$341 million benefit in 2006. For 2009, hedging losses totaled \$195 million. BNSF WP "Monthly Fuel Costs.xlsx." In their efforts to calculate the cost of fuel associated with the MBFSC shipments, Messrs. Crowley and Mulholland improperly incorporated the effects of hedging. Crowley/Mulholland WP "BNSF unit costs and fsc 2002-2010 v2.xlsx."

<sup>67</sup> See, e.g., Crowley/Mulholland WP "BNSF Monthly Fuel Cost v5.xlsx," which references BNSF\_CARGILL\_0111996.xls, BNSF\_CARGILL\_0326754.xls, etc.

<sup>68</sup> BNSF WP "Monthly Fuel Costs.xlsx."

analysis, they concluded that the MBFSC considerably over-recovered the fuel costs that BNSF incurred during the 2006-2010 period. Correcting the errors described above substantially reduces the supposedly “excess revenues” that Messrs. Crowley and Mulholland assert BNSF collected. Exhibit BVF-3 to this VS presents a flowchart and description of the process I followed to correct the Crowley/Mulholland fuel-cost analysis.<sup>69</sup> Table 9 below presents the results of my restatement of the Crowley/Mulholland analysis, and shows that their analysis vastly overstates – by nearly three times – the difference between BNSF’s MBFSC revenues and incremental fuel costs, even before addressing their improper failure to take account of the HDF safe harbor, which I discuss below.

**Table 9  
Fuel Cost Recovery Using BNSF Costs, MBFSC Traffic**

	Cargill	BNSF
2006	{ }	{ }
2007	{ }	{ }
2008	{ }	{ }
2009	{ }	{ }
2010	{ }	{ }
<b>2006-2010 Total</b>	{ }	{ }

Source: BNSF WP “60-Month MBFSC Fuel Recovery.xlsx”

**b. Interpretation of Restated Fuel-Cost Recovery Results**

While the corrected results show that Messrs. Crowley and Mulholland significantly misrepresented the extent to which the challenged fuel surcharge recovered BNSF’s incremental fuel costs, the corrected results still show a variation in the recovery percentage from year to

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<sup>69</sup> The first step of these calculations was similar to those summarized in Table 5 above in that I determined the fuel portion of the system-average URCS variable costs assigned to the MBFSC shipments based on the nine standard costing inputs. For this restatement, I then increased the URCS results to account for BNSF’s total fuel expense, and indexed the costs based on the monthly BNSF internal fuel cost excluding gains and losses from hedging to generate the total fuel costs associated with the MBFSC shipments. Based on these total fuel costs, I determined the gallons, the base fuel costs, and the incremental fuel costs, and then compared the revenues for the MBFSC shipments to the incremental costs.

year, and a { } overall recovery percentage for the five-year analysis period. I explain below that the entire amount of the apparent recovery over 100% set out in the above table is eliminated when the variations between HDF prices and BNSF's internal fuel costs are accounted for. But it is worth pausing here to consider whether the results in Table 9 provide any basis for concern over the fundamental design of the MBFSC. For several reasons, they do not.

First, it is impossible for a railroad to predict in advance exactly how a fuel surcharge will perform in circumstances where many factors affecting fuel costs are subject to change and are outside the control of the railroad. There are myriad dynamic elements that affect the revenues and costs associated with the MBFSC. The traffic to which the surcharge applies involves many different commodities moving in a diverse range of geographic markets and exhibiting different fuel consumption characteristics. The mix of traffic from these different markets varies considerably over the course of a year and from year to year, affecting fuel consumption and surcharge revenue. Moreover, there are constant fluctuations in traffic levels. The fuel efficiency that BNSF achieves over a particular time period is a function of many factors, including the traffic being handled, the operating characteristics of the varied movements, and the broader performance or fluidity of the BNSF network. All of these factors can be affected by other traffic not subject to the MBFSC. In addition, the fuel costs that BNSF incurs are impacted by the overall fuel market, the specific prices and operations of BNSF's fuel suppliers, and also by BNSF's operations. In light of these factors, most of which are beyond the control of the railroad, some degree of over- or under-recovery would be expected of any fuel-surcharge mechanism, no matter how carefully the fuel surcharge was designed to track changes in a railroad's incremental fuel costs.

Second, there are particular factors that influenced the level of recovery in particular years of the 2006-2010 period that could not have been anticipated by BNSF when it designed the MBFSC. Table 9 above identifies that the corrected fuel-cost recovery was {

} in each of the first two years of the MBFSC, respectively. A significant difference between these two years is that, despite BNSF's initial plan to implement mileage-based surcharges for all carload traffic in 2006, the MBFSC was applied only to a subset of the intended traffic in 2006, with the balance of the traffic being included in April 2007. Thus, it was not until 2007, when the recovery percentage is below 100%, that the MBFSC was being applied in the way it was originally designed. The 2007 results present a fuller basis for evaluating the performance of the MBFSC.

Third, the fuel-cost recovery numbers for 2008-2010 are { }. But those years experienced extraordinary changes in fuel and transportation markets. There was a dramatic and rapid run-up and fall-back in fuel costs in 2008 and 2009. Indeed, 2008 saw unprecedented levels of fuel price. And following the rapid increase in fuel prices, the U.S. economy fell into the most significant recession in 75 years. The recession in the United States and in the global economy had a major impact on the volume of traffic that BNSF handled. Over this period, BNSF saw a substantial decline in traffic volumes, which resulted in unexpected improvements to network fluidity, and therefore increases in fuel efficiency. When fuel efficiency increases, costs are temporarily reduced and the recovery percentage increases. But these economic conditions obviously will change over time, producing fluctuations in recovery percentages.

Finally, the results summarized in Table 9 above do not reflect the impact of BNSF's substantial expenditures of capital made in recent years to improve fuel efficiency. Messrs.

Crowley and Mulholland identify several specific examples of BNSF's fuel efficiency investments, but they fail to consider the offsetting impact of those investments to their recovery analysis.<sup>70</sup> By using each year's URCS costs, the Crowley/Mulholland analysis captures the costs savings from fuel efficiencies that were achieved over the 2006-2010 period as a result of BNSF's substantial capital investments. While improved fuel efficiency is reflected in the URCS-based calculations presented in the above table, however, Messrs. Crowley and Mulholland make no attempt to account for the offsetting capital costs incurred to achieve those efficiencies.

When BNSF was interpreting its own internal recovery analyses, it identified a wide range of costs that were not reflected in a recovery analysis but that nonetheless reduced the costs associated with locomotive fuel. For example, BNSF identified very large capital expenditures on items such as fuel-efficient locomotives and fueling facilities and operating expenses such as the costs of tank-car movements of fuel, mechanical laborers, and fueling platforms. These are all costs associated with fuel but that are not captured in fuel-cost recovery analyses that consider only fuel consumption. BNSF produced to Cargill in discovery the results of these studies, including one that identified an additional { } million in annual expense for 2009.<sup>71</sup> As these amounts are not included in either the locomotive fuel expenses reported in the annual R-1 or the total fuel expenses reported in the quarterly FSC reports, no portion of these costs has been included in the recovery analyses summarized in Table 9.

In addition to the internal study conducted by BNSF, there is another source that can be used to identify the additional investments that BNSF has made. One of the items that BNSF

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<sup>70</sup> Cargill Open. at 32-33.

<sup>71</sup> I include in my workpapers the BNSF study produced at BNSF\_CARGILL\_345729 through 345738 as "BNSF Fuel Cost Study.pdf."

studied was the incremental investment in more fuel-efficient locomotives. The URCS model indicates that BNSF's locomotive acquisition costs have increased significantly over the 2006-2010 period. These costs include BNSF's depreciation expenses, lease and rental expenses, and return on the net investment in locomotives – which are included in URCS accounts other than those incorporated in the fuel-cost analysis of Messrs. Crowley and Mulholland. Specifically, BNSF's annual URCS locomotive acquisition expense increased by \$260 million from 2006 to 2010, from \$624 million to \$884 million (more than 40%).<sup>72</sup> Many of the new units that BNSF acquired over the last five years resulted in higher fuel efficiency – and, as a result, lower consumption and fuel costs assigned to the MBFSC shipments in URCS. The above comparisons suggesting that fuel-surcharge revenues slightly exceeded incremental costs from 2006 to 2010, however, include *none of the \$260 million increase to BNSF's annual URCS costs* during that period.

In summary, the recovery results set out in Table 9 above do not provide any reason to believe that there was a design flaw in the MBFSC. Moreover, as I show below, the entire amount of recovery over 100% in Table 9 is attributable to BNSF's use of the HDF index as a proxy for its internal fuel cost, and therefore is subject to the “safe harbor” treatment that the STB established for carrier reliance on the HDF index.

c. Crowley/Mulholland's Recovery Analysis Ignores the “Safe Harbor” Granted by the STB

The recovery figures in Table 9 above are based on a comparison of the MBFSC revenues to BNSF's incremental fuel costs. Since BNSF designed the MBFSC to be assessed based on the level of the HDF index, the revenue side of the comparison is based on changes in HDF prices. However, Messrs. Crowley and Mulholland assess BNSF's incremental costs using

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<sup>72</sup> BNSF WP “URCS Road Loco DL LR ROI.xlsx,” using URCS Worktable D3 Lines 209, 210, and 222.

BNSF's actual internal fuel costs. Specifically, they calculate BNSF's incremental costs as the difference between BNSF's total costs, using BNSF's actual fuel costs (with hedging effects) and BNSF's costs at an internal fuel price of \$0.73. Therefore, the revenue side of the comparison reflects changes in HDF prices and the cost side reflects changes in BNSF's internal costs. If the difference between the HDF price and the price BNSF actually paid for fuel varies from month-to-month, these variations will be reflected in the comparison of revenues to incremental costs.

In fact, the HDF price and BNSF's internal price paid for fuel did vary over time, not surprisingly. These variations are caused by several factors. The HDF is a retail fuel index while BNSF buys fuel in large quantities in wholesale markets. The retail HDF price includes margins that change at rates that are different from those charged at the wholesale level. Also, HDF retail prices tend to be "stickier" in times of falling fuel prices. In addition, the HDF index is based on national average prices, while BNSF purchases fuel in specific regional markets at different times.

In *Fuel Surcharges III*, the STB permitted railroads to use the HDF as a proxy for a railroad's internal fuel cost and created a safe harbor for railroads choosing to use that index as the basis for tracking changes in cost to be recovered by the fuel surcharge. The STB found that changes in the HDF price are a good proxy for changes in fuel prices paid by railroads and that the HDF price is highly correlated to the price paid by railroads for fuel. A high correlation, however, does not mean an exact match. There is a "spread" between the price BNSF pays for locomotive fuel and the HDF price. That spread has varied somewhat over time, sometimes widening and sometimes narrowing, but is beyond BNSF's control. Modest variation between the HDF price and actual fuel prices for railroads must be expected. In light of the safe harbor

that the STB created, it is not appropriate for Messrs. Crowley and Mulholland to fault BNSF for the effect of these variations in the spread over time.

As Figure 2 below demonstrates, fuel prices were highly volatile over the period 2005-2010, but the HDF and BNSF internal prices tracked each other very closely. The fact that the spread (shown in the lowest line on the chart) is relatively flat notwithstanding the large changes in fuel prices both in the HDF and the internal prices paid by BNSF shows that the Board was correct that the HDF is a reasonable proxy for changes in a railroad's internal costs.<sup>73</sup> But the two price trends did not move perfectly in tandem. The recovery analysis performed by Messrs. Crowley and Mulholland reflects the impact of the variations that occur in the spread. While those variations fluctuate up and down, even a slight imbalance over time can produce the appearance of an over-recovery.

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<sup>73</sup> I determined that the volatility of the spread – measured as the ratio of the standard deviation to the mean – over the 11-year period was less than one-half the volatility of the monthly HDF price, and less than one-third the volatility of the BNSF internal price. BNSF WP “Monthly Fuel Costs.xlsx.” While this is not surprising, given the high correlation between the two price series, the separate fact that the HDF has exhibited relatively less volatility than the BNSF internal price over time is another argument for basing the MBFSC on the independent, publicly available HDF.

**Figure 2**  
**Monthly HDF and BNSF Fuel Cost per Gallon, 2000-2010**

{

Source: BNSF WP "Monthly Fuel Costs.xlsx"

}

To give effect to the safe harbor, any recovery analysis should eliminate the effect of the divergence over time between the HDF price and BNSF's internal cost of fuel. The STB concluded that it was appropriate for railroads to use the HDF, so it makes no sense for Cargill to base its critique of BNSF's fuel surcharge to a large extent on the fact that the HDF price diverged over time from BNSF's internal fuel cost. The STB knew that the relationship between HDF and internal railroad fuel costs was highly correlated but not absolutely precise. It nevertheless created a safe harbor for railroads choosing to use the HDF index.

Table 10 below presents the results of calculating the costs of the MBFSC shipments based on the HDF price, instead of based on BNSF's internal fuel cost. I corrected the

Crowley/Mulholland analysis by determining the gallons of fuel consumed by BNSF to handle the MBFSC traffic for each month and multiplying the gallons by the difference between the HDF price in that month and the HDF strike price of \$1.25.<sup>74</sup> The results show what BNSF's incremental costs would have been if BNSF's internal fuel costs had exactly tracked changes in the HDF. The recovery over the five-year period would have been below 100%. Since BNSF could not predict what would happen to the spread between its internal fuel costs and the HDF in the future and since the Board explicitly found that a railroad could use the HDF index as a proxy for a railroad's cost changes, the approach I used to develop the results shown in Table 10 is the proper way to evaluate the cost recovery of the MBFSC.

**Table 10  
Fuel Cost Recovery, MBFSC Traffic**

	Cargill	Corrected
2006	{ }	{ }
2007	{ }	{ }
2008	{ }	{ }
2009	{ }	{ }
2010	{ }	{ }
<b>2006-2010 Total</b>	{ }	{ }

Source: BNSF WP "60-Month MBFSC Fuel Recovery.xlsx"

As I have explained above, Messrs. Crowley and Mulholland improperly try to evaluate BNSF's MBFSC exclusively on an after-the-fact basis, assuming that BNSF could have and should have had perfect knowledge of future events in highly volatile markets. But when their analysis is corrected, it is clear that even under their after-the-fact approach, the MBFSC did not generate revenues that exceeded incremental fuel costs.

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<sup>74</sup> BNSF WP "60-Month MBFSC Fuel Recovery.xlsx."

**V. The Crowley/Mulholland Analysis Does Not Properly Assess the Design of the MBFSC**

As I explained above in the introduction, the second portion of the Crowley/Mulholland analysis purports to discuss the “fundamental design flaws” in the MBFSC. In fact, Messrs. Crowley and Mulholland do not take issue with the basic design of BNSF’s MBFSC. Instead, Messrs. Crowley and Mulholland challenge the specific value given to the “step function” used in the MBFSC and the specific starting point at which BNSF begins charging a surcharge, *i.e.*, the “strike price.” Messrs. Crowley and Mulholland seek to evaluate the values chosen by BNSF for the step function and strike price with perfect 20/20 hindsight. The “correct fuel surcharge” that they conclude BNSF should have had in place nearly six years ago is determined using a series of regression analyses that require information that was not available at the time BNSF designed its MBFSC. Further, for this retroactive review, Messrs. Crowley and Mulholland rely upon their incorrect calculation of BNSF’s fuel costs, ignore the safe harbor granted by the STB for carriers to base their fuel surcharges on the HDF, and claim a level of precision that is not appropriate for determining whether a fuel surcharge bears a reasonableness nexus to fuel consumption. The Crowley/Mulholland analysis makes no sense as a tool for evaluating the reasonableness of a fuel surcharge design.

**A. Messrs. Crowley and Mulholland Estimate Step Functions for the MBFSC that Dramatically Understate BNSF’s Fuel Consumption and Ignore the STB’s Safe Harbor**

The bulk of the Crowley/Mulholland analysis in the second portion of their Verified Statement is devoted to a critique of BNSF’s fuel consumption assumption. They assert that BNSF chose the incorrect “step function” for its fuel surcharge table. As I demonstrated above, the “step function” is the mechanism by which the assumption about fuel consumption by the traffic to which the surcharge is applied is implemented in the fuel surcharge. The structure of

the MBFSC is based on the overall 4 MPG fuel-consumption profile of the shipments to which it applies, which is implemented as a \$0.01 per-mile increase in the fuel surcharge for every \$0.04 increase in the HDF. Messrs. Crowley and Mulholland assert that “the correct fuel surcharge that should have been applied” would have used a step equivalent to 5.18 MPG for what they classify as Ag traffic and a step equivalent to 4.57 MPG for what they classify as Other Freight traffic.<sup>75</sup> In other words, they assert that BNSF should have assumed a lower fuel-consumption rate (*i.e.*, a higher MPG factor) in setting the MBFSC and should have had two different fuel surcharges for the two different categories of traffic.

There are several flaws in the Crowley/Mulholland evaluation of the MBFSC step function. First, Messrs. Crowley and Mulholland have no basis for segregating BNSF’s single MBFSC into two surcharges, one for “Ag” traffic and another for “Other Freight” traffic. As explained by Messrs. Lanigan and Anderson and confirmed by the BNSF traffic records that Messrs. Crowley and Mulholland analyzed, a large portion of Ag traffic moves on merchandise trains.<sup>76</sup> Messrs. Lanigan and Anderson explain that BNSF designed the MBFSC to cover all carload traffic except unit-train coal and taconite, and since early 2007 the MBFSC has been applied to all regulated carload traffic. In reporting my results below, I treat as one group the shipments that are subject to the MBFSC, rather than dividing them into separate sub-groups.<sup>77</sup>

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<sup>75</sup> Crowley/Mulholland VS at 18.

<sup>76</sup> BNSF WP “Train Symbol Analysis.xlsx.”

<sup>77</sup> Messrs. Crowley and Mulholland erroneously classified many movements to the Other Freight group that are considered Ag traffic in BNSF’s marketing organization, mis-categorizing certain STCC 28 and 14 movements of ethanol, fertilizer, and anhydrous ammonia, among others. These errors can be observed by Table 1 to the Crowley/Mulholland VS, in which they report {                    } Other Freight carloads in 2006, when the MBFSC applied only to BNSF’s agricultural products. Because there is no basis for treating this traffic as if it were subject to different fuel surcharges, I have not corrected these errors.

Second, as I have noted previously, it makes no sense for Messrs. Crowley and Mulholland to claim that BNSF should have established a step function for its MBFSC based on regression analyses performed in 2011 using historical data that did not exist when BNSF designed the MBFSC or when BNSF monitored the performance of the MBFSC. BNSF designed the carload surcharge mechanism in 2005. All of the inputs to the Crowley/Mulholland regression equations were unknown when BNSF designed the MBFSC.

Third, even if it were appropriate to use historical data to determine in hindsight the proper step function for the MBFSC, there would be no need to use a series of regression analyses to determine the proper fuel-consumption rate to build into the MBFSC table. It is possible to calculate gallons and miles, and therefore MPG, directly using data in the Crowley/Mulholland analyses.

As I explained previously, the Crowley/Mulholland URCS analysis can be used to determine the gallons of locomotive fuel consumed by BNSF to handle the relevant traffic. I described previously the flaws in their URCS calculations and their failure to include the non-variable portion of the locomotive fuel costs in their calculations. I also described Crowley/Mulholland's failure to consider non-locomotive fuel. When these errors are corrected, the total gallons of fuel associated with BNSF's MBFSC shipments can be determined. The Crowley/Mulholland workpapers also include the miles that were used by BNSF to assess the surcharge. As Messrs. Crowley and Mulholland acknowledge, it would not be appropriate to use the actual cycle miles to determine the MPG factor, since the surcharge is assessed on a different mileage basis, *i.e.*, what Mr. Anderson calls "shortest rail miles." Messrs. Crowley and Mulholland include both sets of mileages in their workpapers.<sup>78</sup> With the proper gallons and

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<sup>78</sup> See, e.g., Crowley/Mulholland WP "Fuel And Miles Summary all-ag-other.xlsx."

miles data, the determination of the miles-per-gallon realized by the traffic group is straightforward.<sup>79</sup> As I presented in Table 1 above, the result is an average fuel-consumption rate of approximately 4 MPG. Table 1 is reproduced below.

**Table 11**  
**FSC Miles per Gallon, MBFSC Traffic**

2006	2007	2008	2009	2010
4.04	3.99	3.96	3.98	4.07

Source: BNSF WP “60-Month MBFSC Fuel Recovery.xlsx”

Indeed, Messrs. Crowley and Mulholland present in their statement an estimate of the MPG for the traffic at issue here, although they don’t rely on that estimate for their proposed alternative step function. Their MPG calculations indicate that the MBFSC shipments averaged { } MPG over the 2006-2010 period – { } MPG for what they classified as Ag, and { } MPG for their Other Freight sub-group.<sup>80</sup> Therefore, even using their flawed URCS calculations, the Crowley/Mulholland analysis produced an average fuel-consumption rate significantly below 5 MPG. Indeed, the difference between the 4 MPG set out in Table 11 above and the Crowley/Mulholland estimate of { } MPG is attributable to the failure of Messrs. Crowley and Mulholland to include the non-variable portion of locomotive fuel and the non-locomotive fuel and their inappropriate movement-specific adjustments in calculating URCS variable costs. When the Crowley/Mulholland MPG analysis is corrected, it confirms the reasonableness of BNSF’s 4 MPG step function in the MBFSC.

However, Messrs. Crowley and Mulholland do not rely on their MPG estimate in assessing the step function for the MBFSC because they seek to take advantage of the fact that BNSF’s internal fuel costs did not precisely track changes in the HDF. Cargill’s counsel explain

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<sup>79</sup> BNSF WP “60-Month MBFSC Fuel Recovery.xlsx.”

<sup>80</sup> Crowley/Mulholland VS at 27, and Crowley/Mulholland WP “Fuel And Miles Summary w added calcs v1305 strike Ag.xlsx” and “Fuel And Miles Summary w added calcs v1305 strike Other.xlsx.”

why Messrs. Crowley and Mulholland chose not to rely on their MPG estimate in assessing the step function of the MBFSC:

[C]onstructing step functions based solely on BNSF's actual fuel consumption will lead to an over-recovery of incremental fuel cost increases because such a construction does not factor in the statistical relationship between changes in the HDF prices used in the [Assailed Tariff Item] and changes in BNSF's actual fuel price changes.<sup>81</sup>

In other words, Cargill contends that the step function must include some type of adjustment to account for changes that have occurred and will occur in the future in the relationship between the HDF and BNSF's internal fuel costs. In effect, Messrs. Crowley and Mulholland are challenging the Board's conclusion in the *Fuel Surcharges III* decision that it is appropriate for railroads to use the HDF index as a proxy for changes in a railroad's fuel costs. The Crowley/Mulholland step-function analysis is based on the contrary assumption – namely that it is *not* appropriate to assume that BNSF's fuel costs change at the same rate as the HDF index and BNSF must account for the differences in its fuel-surcharge mechanism.

The step-function analysis is an end-run around the rule that railroads are entitled to use the HDF index in their fuel-surcharge mechanisms as a proxy for changes in their internal costs. To perform their regression analysis, Messrs. Crowley and Mulholland set-up a series of monthly figures covering the first five years that the MBFSC was in effect, 2006-2010. They then developed their so-called “correct” fuel surcharge step function by comparing the incremental BNSF fuel costs per mile that they (inaccurately) calculated to the HDF price from the corresponding month. Based on the results of those regressions, they calculated restated step functions of 5.18 and 4.57 cents for their Ag and Other Freight groups, respectively.<sup>82</sup>

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<sup>81</sup> Cargill Open. at 27.

<sup>82</sup> Exhibit No. 5 to Crowley/Mulholland VS and Cargill Open. at 25-26. In explaining the approach, Cargill presents the results for the month of April 2006, for which Messrs. Crowley

Messrs. Crowley and Mulholland make clear that 5.18 and 4.57 are *not* estimates of fuel consumption. As noted above, they estimated the miles-per-gallon for the traffic covered by the MBFSC and came up with MPG-based steps that are quite a bit lower than the “steps” that they calculate with the regression analysis: their MPG estimates average { } for the MBFSC shipments, compared to an average regression-based step function of { }.<sup>83</sup>

The difference between the regression step-function results and the results of their MPG estimate reflect the fact that their regression compares BNSF’s costs, which are calculated using BNSF’s internal fuel costs, to changes in the HDF. The Crowley/Mulholland regression analysis therefore expressly seeks to take account of the fact that BNSF’s costs, which are based on BNSF’s actual fuel costs, do not track exactly the changes in the HDF fuel price index. Indeed, Messrs. Crowley and Mulholland conduct another regression that compares BNSF’s costs to changes in BNSF’s fuel costs per gallon, rather than changes in the HDF. This second regression excludes the effect of changes in the spread between BNSF’s internal costs and the HDF, and the result of this second regression is a step function that is very close to their MPG estimate for the carload traffic. Crowley/Mulholland’s second regression produces step functions of { } for “Ag” traffic and { } for “Other Freight.”<sup>84</sup>

In summary, Messrs. Crowley and Mulholland produce three separate step-function analyses – two of those analyses exclude the effect of changes between the HDF and BNSF’s

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and Mulholland calculated a “Correct Fuel Surcharge” (BNSF incremental fuel costs) for Ag traffic of \$0.20 per mile, when the HDF was \$2.728 per gallon. Comparing the Crowley/Mulholland costs to the HDF amount above the \$1.25 strike price suggests a result of more than 7 MPG (  $(\$2.728 - \$1.25) / (\$0.20) = 7.4$  ), which greatly exceeds their regression estimate and calls into question their approach.

<sup>83</sup> Crowley/Mulholland WP “Restated MBFSC Tables.xlsx.”

<sup>84</sup> Crowley/Mulholland VS at 26. When the Crowley/Mulholland errors in calculating BNSF’s fuel costs are corrected, the results of this second regression analysis produce step functions that also confirm the reasonableness of BNSF’s 4 MPG step function in the MBFSC. BNSF WP “60-Month MBFSC Fuel Recovery.xlsx.”

internal fuel costs (the MPG analysis and the second regression described above) and the third includes the effect of the changes between the HDF and BNSF's internal fuel costs. The first two step-function analyses produce step functions that are very close to one another, but significantly below 5 MPG. When corrected, they confirm BNSF's use of 4 MPG. The third analysis produces the step functions of 5.18 for Ag and 4.57 for Other Freight that Cargill asks the Board to endorse. But Messrs. Crowley and Mulholland conduct yet another regression to confirm the step functions of 5.18 and 4.57 by showing that when an appropriate "adjustment factor" is applied to the first two step functions, the result is very close to the results of 5.18 for Ag and 4.57 for Other Freight.

Cargill's counsel explain the reason for applying the supposed "adjustment factor:"

To correctly correlate BNSF's actual fuel consumption with BNSF's HDF price changes, BNSF's actual fuel consumption figures need to be adjusted upward by a factor of {     }. . . Application of this factor produces correlated, imputed MPG figures of {     } MPG for Ag and {     } for OF.<sup>85</sup>

In other words, if one starts with actual MPGs (or if one starts with the alternative regression results that did not reflect the difference between HDF and BNSF internal price), it is necessary to adjust the MPG estimate upward to account for the fact that BNSF's actual fuel costs do not change at exactly the same rate as the HDF index. Cargill makes no attempt to hide the fact that their step-function calculations are designed to get around the Board's decision that railroads would be afforded a safe harbor if they use the HDF index as a proxy for changes in their internal costs.

Messrs. Crowley and Mulholland calculate their "adjustment factor" of {     } using a regression analysis that compares BNSF's internal fuel costs to the HDF. Because the regression coefficient differs from 1.00, they conclude that "the HDF price cannot be treated as a perfect

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<sup>85</sup> Cargill Open. at 27.

proxy for BNSF fuel consumption rates . . . Rather a consumption adjustment factor of { }<sup>86</sup> must be accounted for in the development of the fuel surcharge formula.”<sup>87</sup> The proposed Crowley/Mulholland “adjustment factor” flatly challenges the Board’s declaration that railroads can reasonably use the HDF as a proxy for railroad cost changes, and their entire step-function analysis is therefore built upon that flawed premise.

Without suggesting it would be useful to perform a regression analysis of the HDF and BNSF prices, it is also worth noting that the regression from which Messrs. Crowley and Mulholland developed the supposed { } adjustment factor is influenced by the inclusion of the results of BNSF’s hedging activities. The regression analysis does not, therefore, present an accurate picture of the modest variation in the spread between HDF and BNSF prices experienced over time. When BNSF’s pre-hedge fuel costs are substituted, the regression coefficient increases to { }, instead of { }.<sup>88</sup> In other words, the amount of any variation between the two fuel prices is less than { } percent, and is *one-fourth* the magnitude of the difference claimed by Messrs. Crowley and Mulholland.<sup>89</sup>

Finally, it is instructive to consider what would have happened if BNSF had actually used a step function in the MBFSC at levels that reflected a fuel-consumption rate above 4 MPG. Table 12 below shows that even without taking account of the safe-harbor provision, BNSF would have recovered substantially less than its incremental fuel costs above \$0.73 per gallon if

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<sup>86</sup> 1.00 divided by the slope of the regression function, { }.

<sup>87</sup> Crowley/Mulholland VS at 25.

<sup>88</sup> BNSF WP “Monthly Fuel Costs.xlsx.”

<sup>89</sup> This modest difference between BNSF’s fuel costs and the HDF highlights the misleading nature of the example by which Messrs. Crowley and Mulholland attempted to illustrate their claim. In that example, one price series was assumed to increase at 50% (one-half) the rate of the other; in actuality, any difference over the 2006-2010 period is less than { }%. Table 4 to Crowley/Mulholland VS at 23.

it had assumed fuel consumption of 5 or 5.18 MPG.<sup>90</sup> When the safe harbor is given effect, the extent of BNSF’s under-recovery becomes even more pronounced.

**Table 12**  
**Recovery of BNSF’s Incremental Fuel Costs**  
**at MBFSCs with Different Miles per Gallon Assumptions**

MPG Assumed in MBFSC	Recovery Based on BNSF Fuel Costs	Recovery Based on HDF
4.0	{ }	{ }
5.0	{ }	{ }
5.18	{ }	{ }

Source: BNSF WP “60-Month MBFSC Fuel Recovery.xlsx”

Table 12 shows that any assumption above 4 MPG would have produced significant under-recovery of incremental costs, even before considering the impact of the Board’s safe harbor regarding the use of the HDF index. BNSF’s choice of a 4 MPG step function was reasonable even when examined on an after-the-fact basis.

**B. Messrs. Crowley’s and Mulholland’s Claims Regarding the Starting Point of the MBFSC Are Also Based on Flawed Analysis and Ignore the STB’s Safe Harbor**

In addition to challenging the step function in the MBFSC, Messrs. Crowley and Mulholland criticize BNSF’s use of \$1.25 HDF as the starting point for the assessment of a fuel surcharge. They base their criticism of BNSF’s \$1.25 strike price on the same regression they used to support their claim for a “consumption adjustment factor” of { } to reflect variation between HDF and BNSF prices. As noted above, the regression compares the monthly BNSF fuel costs per gallon, including the gains and losses from hedging, to the HDF. Based on the results of this regression, Messrs. Crowley and Mulholland claim that BNSF’s price of \$0.73, the amount assumed to be recovered in the base rates, actually corresponds to an HDF price of

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<sup>90</sup> BNSF WP “60-Month MBFSC Fuel Recovery.xlsx.”

\$1.298. From this, Messrs. Crowley and Mulholland conclude that BNSF chose the wrong starting point for the MBFSC.

Once again, there are several fundamental conceptual flaws in the Crowley/Mulholland approach. First, as in the case of their step function analysis, the Crowley/Mulholland starting-point analysis is performed from the perspective of 2011 using data from 2006-2010. It is obvious that BNSF could not have performed such an analysis when it designed the fuel surcharge in 2005. Indeed, Mr. Anderson indicates that BNSF did perform an analysis of BNSF and HDF prices prior to designing the fuel surcharge and found that the relationship between \$1.25 HDF and \$0.73 internal BNSF cost appeared to be reasonably accurate at the time.

Second, Messrs. Crowley and Mulholland again insist on a degree of precision that cannot be justified. As discussed above, the relationship between HDF and BNSF prices varies over time. Because of this variation, analyses performed at different times will necessarily produce answers that vary from an exact correspondence between \$1.25 and \$0.73. In fact, Messrs. Crowley and Mulholland themselves report a number of different HDF values that they assert correspond to an internal BNSF price of \$0.73.<sup>91</sup> BNSF was entitled to make a decision about the starting point of the MBFSC based on the data that were available at the time.

Messrs. Crowley and Mulholland propose a separate, one-half step adjustment, or \$0.02 increase in the starting point, that suffers from the same conceptual flaws.<sup>92</sup> They assume that that starting point should have been established with an excessive focus on precision, at the cost of convenience and transparency. This kind of micromanagement of the starting point is clearly inappropriate when Messrs. Crowley's and Mulholland's own analysis indicates that variations

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<sup>91</sup> Crowley/Mulholland VS at 30.

<sup>92</sup> Crowley/Mulholland VS at 32.

in the spread between BNSF and HDF prices could encompass more than a \$0.02 difference in the starting point.

In their desire to reverse-engineer BNSF's fuel surcharge, the Crowley/Mulholland analysis ignores the obvious fact that BNSF had to choose *some* starting point for the MBFSC. The Board should not second-guess reasonable choices for the starting point of a fuel surcharge.

## **VI. Comments on Damages**

The Board bifurcated this proceeding into a liability phase and a damages phase. Despite the Board's bifurcation order, Messrs. Crowley and Mulholland submitted calculations that purport to show fuel-surcharge overpayments that Cargill made for shipments from April 19, 2008 through December 31, 2010.<sup>93</sup> Cargill's counsel stated that Cargill will be requesting repayment of these overcharge amounts as damages.<sup>94</sup> It is premature to address damages issues at this liability stage of the case. Nevertheless, I have the following observations about Cargill's damages evidence.

First, the estimate of damages is produced by applying the modified fuel surcharge formula that Messrs. Crowley and Mulholland develop using their flawed regression approach. The conceptual flaws and incorrect calculations in that regression approach are discussed in detail above.

Second, although Messrs. Crowley and Mulholland claim that the amounts they intend to seek in damages reflect overpayments that Cargill made on regulated traffic, more than one-third of the shipments on which they claim damages are either shipments for which Cargill did not pay the fuel surcharge, or shipments of exempt commodities. Exhibit No. 3 to the

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<sup>93</sup> See Crowley/Mulholland VS at 34 and Exhibit No. 3.

<sup>94</sup> Cargill Open. at 40.

Crowley/Mulholland VS identified a total of { } “Cargill Cars (Regulated Traffic Moved between 4/19/08 and 12/31/10).” The waybill files indicate that Cargill was not the freight payer for more than { } of these carloads, and that another { } carloads were shipments of commodities that are exempt from STB regulation.<sup>95</sup>

Third, Messrs. Crowley and Mulholland characterize the damages they seek as overcharges. They treat the calculation of damages as though this were a rate reasonableness case, where damages are the difference between the actual amounts paid and the maximum reasonable rate. But most of the traffic for which they claim “overcharge” damages is traffic that moves well below the Board’s jurisdictional threshold. I calculated the system-average URCS variable costs for the 2009 regulated shipments for which Cargill was the Freight Payer, and developed the revenue-to-variable-cost (“R/VC”) ratios based on the revenue information for each shipment contained in the BNSF waybill files. Overall, Cargill’s 2009 regulated shipments had an average R/VC of { }, and { } carloads had R/VC ratios that were below the STB’s jurisdictional threshold of 180%.<sup>96</sup>

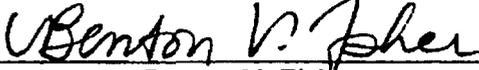
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<sup>95</sup> BNSF WP “Cargill Exhibit 3 Reply.xlsx.”

<sup>96</sup> BNSF WP “Cargill 2009 Regulated RVCs.xlsx”

I declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed on October 21, 2011

  
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Benton V. Fisher

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## Benton V. Fisher

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### Education

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**Benton V. Fisher** is a Senior Managing Director of FTI's Economic Consulting group, located in Washington, D C. Mr. Fisher has more than 20 years of experience in providing financial, economic and analytical consulting services to corporate clients dealing with transportation, telecommunications, and postal subjects.

North America's largest railroads have retained FTI both to assist them in making strategic and tactical decisions and to provide expert testimony in litigation. FTI's ability to present a thorough understanding of myriad competitive and regulatory factors has given its clients the necessary tools to implement and advance their business. Mr. Fisher has worked extensively to develop these clients' applications for mergers and acquisitions and expert testimony justifying the reasonableness of their rates before the Surface Transportation Board. In addition to analyzing extensive financial and operating data, Mr. Fisher has worked closely with people within many departments at the railroad as well as outside counsel to ensure that the railroads' presentations are accurate and defensible. Additionally, Mr. Fisher reviews the expert testimony of the railroads' opponents in these proceedings, and advises counsel on the necessary course of action to respond.

AT&T and MCI retained FTI to advance its efforts to implement the Telecommunications Act of 1996 in local exchange markets. Mr. Fisher was primarily responsible for reviewing the incumbent local exchange carriers' (ILEC) cost studies, which significantly impacted the ability of FTI's clients to access local markets. Mr. Fisher analyzed the sensitivity of multiple economic components and incorporated this information into various models being relied upon by the parties and regulators to determine the pricing of services. Mr. Fisher was also responsible for preparing testimony that critiqued alternative presentations.

Mr. Fisher assisted in reviewing the U.S. Postal Service's evidence and preparing expert testimony on behalf of interveners in Postal Rate and Fee Changes cases. He has also been retained by a large international consulting firm to provide statistical and econometric support in their preparation of a long-range implementation plan for improving telecommunications infrastructure in a European country.

Mr. Fisher has sponsored expert testimony in rate reasonableness proceedings before the Surface Transportation Board and in contract disputes in Federal Court and arbitration proceedings.

Mr. Fisher holds a B.S. in Engineering and Management Systems from Princeton University.

**TESTIMONY**

**Surface Transportation Board**

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|--------------------|---|
| January 15, 1999   | Docket No. 42022 FMC Corporation and FMC Wyoming Corporation v. Union Pacific Railroad Company, Opening Verified Statement of Christopher D. Kent and Benton V. Fisher  |
| March 31, 1999     | Docket No. 42022 FMC Corporation and FMC Wyoming Corporation v. Union Pacific Railroad Company, Reply Verified Statement of Christopher D. Kent and Benton V. Fisher    |
| April 30, 1999     | Docket No. 42022 FMC Corporation and FMC Wyoming Corporation v. Union Pacific Railroad Company, Rebuttal Verified Statement of Christopher D. Kent and Benton V. Fisher |
| July 15, 1999      | Docket No. 42038 Minnesota Power, Inc. v. Duluth, Missabe and Iron Range Railway Company, Opening Verified Statement of Christopher D. Kent and Benton V. Fisher        |
| August 30, 1999    | Docket No. 42038 Minnesota Power, Inc. v. Duluth, Missabe and Iron Range Railway Company, Reply Verified Statement of Christopher D. Kent and Benton V. Fisher          |
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| June 15, 2000      | Docket No. 42051 Wisconsin Power and Light Company v. Union Pacific Railroad Company, Opening Verified Statement of Christopher D. Kent and Benton V. Fisher            |
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| March 13, 2001     | Docket No. 42054 PPL Montana, LLC v. The Burlington Northern Santa Fe Railway Company, Reply Verified Statement of Christopher D. Kent and Benton V. Fisher             |
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August 15, 2011 Docket No. 42124 State of Montana v. BNSF Railway Company, BNSF Railway Company's Reply Evidence and Argument, Verified Statement of Benton V. Fisher

*U.S. District Court for the Eastern District of North Carolina*

March 17, 2006 Civil Action No. 4:05-CV-55-D, PCS Phosphate Company v Norfolk Southern Corporation and Norfolk Southern Railway Company, Report by Benton V. Fisher

*U.S. District Court for the Eastern District of California*

January 18, 2010 E.D. Cal. Case No. 08-CV-1086-AWI, BNSF Railway Company v. San Joaquin Valley Railroad Co., et al.

Benton V. Fisher

Arbitrations and Mediations

July 10, 2009

JAMS Ref. # 1220039135; In the Matter of the Arbitration Between Pacer International, Inc., d/b/a/ Pacer Stacktrain (f/k/a/ APL Land Transport Services, Inc.), American President Lines, Ltd. And APL Co. Pte. Ltd. And Union Pacific Railroad Company; Rebuttal Expert Report of Benton V. Fisher

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