VERIFIED STATEMENT OF THOMAS D. CROWLEY AND DANIEL L. FAPP

I. INTRODUCTION

We are Thomas D. Crowley and Daniel L. Fapp. We are economists and, respectively, the President and Assistant Vice President of L. E. Peabody & Associates, Inc., an economic consulting firm that specializes in solving economic, transportation, marketing, and fuel supply problems. Mr. Crowley has spent most of his consulting career of over thirty-five (35) years evaluating fuel supply issues and railroad operations, including railroad costs, prices, financing, capacity and equipment planning issues. His assignments in these matters have been commissioned by railroads, producers, and shippers of different commodities. A copy of his credentials is included as Exhibit No. 1 to this verified statement.

Mr. Fapp has been with L. E. Peabody & Associates, Inc. since 1997. During this time, he has worked on numerous projects dealing with railroad revenue, cost and operational issues. Prior to joining L. E. Peabody & Associates, Inc., Mr. Fapp was employed by BHP Copper Inc. in the role of Transportation Manager - Finance and Administration, and where he also served as an officer of the three BHP Copper Inc. subsidiary railroads, The San Manual Arizona Railroad, the BHP Arizona (formerly Magma Arizona) Railroad and the BHP Nevada Railroad. A copy of his credentials is included as Exhibit No. 2 to this verified statement.

We have been requested by counsel for the Western Coal Traffic League ("WCTL") to address certain issues arising from the Surface Transportation Board's ("STB") decision in Ex Parte No. 661, *Rail Fuel Surcharges*, served August 3, 2006 ("Ex Parte 661"). Specifically,

counsel for WCTL have requested that we address the following issues: (1) the development of a methodology for fairly and equitably recovering changes in railroad fuel prices as a means to address unexpected and precipitous price increases;[1] (2) the appropriate fuel index to measure changes in railroad fuel prices; and (3) the railroads' reporting requirements surrounding fuel surcharges.

Our testimony is discussed further below under the following topical headings:

II. Fuel Surcharge Mechanism

III. Fuel Price Indices

IV. Railroad Reporting Requirements

[1]The STB used the terms "fuel price" and "fuel cost" interchangeably at several points in its Ex Parte 661 decision. There is a distinction, however, between a railroad's "fuel price" and its "fuel cost." Fuel price reflects the amount of money railroads pay for fuel. Fuel cost reflects how efficiently a railroad utilizes the fuel it purchases, i.e., the impact of the change in fuel price, productivity and operating factors.

II. FUEL SURCHARGE MECHANISM

The STB instituted this proceeding to inquire as to the fuel surcharge practices employed by the railroad industry for purportedly recouping their rapid increases in fuel costs due to increasing fuel prices.[2] The major western coal hauling railroads, including The BNSF Railway Company ("BNSF") and the Union Pacific Railroad Company ("UP"), began implementing fuel surcharge programs in the last four years as the price of diesel fuel substantially increased above historic price ranges. In all cases, the railroads imposed fuel surcharge programs which based the fuel surcharge on a percentage of the total freight charges for each shipment.[3] The STB has found that the railroads' revenue-based fuel surcharges have little, if any, correlation between an increase in the railroads' costs of fuel due to higher fuel prices and the levels of the shippers' rates, and, therefore, has ruled that the revenue-based fuel surcharges are an unreasonable practice. The STB now seeks to develop a means for computing a surcharge that more closely links changes in railroad fuel prices to the surcharge levied, and takes into consideration the attributes of the underlying rail movement that directly affect the amount of fuel consumed.[4]

We agree with the STB as to the unreasonableness of the railroads' revenue-based fuel surcharges. However, we believe that the STB's Ex Parte 661 decision does not address

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[2]See Ex Parte 661 at 1.

[3]Beginning January 2006, the BNSF began employing a surcharge based on loaded train-miles for some coal and grain shipments. The STB identifies this approach as a "mileage-based fuel surcharge" as opposed to a "revenue-based fuel surcharge" levied by BNSF on commodities other than coal/grain and by other railroads.

[4]See Ex Parte 661 at 5.

additional unreasonable attributes of the railroads' fuel surcharge programs. First, as a threshold issue, evidence indicates that the need for any fuel surcharge is unnecessary since rate adjustment approaches using the STB approved Rail Cost Adjustment Factor ("RCAF") currently recover costs associated with changes in railroad fuel prices. Second, any reasonable and equitable fuel surcharge approach, assuming one is even required in certain extraordinary situations, must link the timing of the surcharge threshold price level to the timing of the underlying rate. Third, as suggested by the STB, the fuel surcharge mechanism must account for each movement's operational attributes while being relatively simple to apply. Fourth, any fuel surcharge must not lead to windfall gains for the railroad and unfairly shift the risks of fuel price increases to shippers. We discuss each of these issues, plus present a fair and equitable fuel surcharge approach, below.

A. THE RCAF FULLY RECOVERS CHANGES IN CARRIER FUEL PRICES

As we demonstrated in WCTL's Opening Statement in this proceeding filed on April 27, 2006, current railroad cost recovery procedures utilizing 100 percent of the RCAF already recover the western coal railroads' changes in fuel prices.[5] As further demonstrated below, the application of the RCAF as a rate adjustment mechanism does truly recover changes in railroad fuel prices.

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[5] See WCTL Opening Statement Exhibit No. 2.

The Interstate Commerce Commission ("ICC") instructed in Railroad Cost Recovery Procedures[6] that the Association of American Railroads ("AAR") develop and file, and the ICC, and subsequently the STB, review and approve the quarterly RCAF index. In constructing the RCAF, the AAR estimates price changes in seven (7) expense categories - labor, materials and supplies, equipment rents, depreciation, interest, other items and fuel. From these estimates, the AAR develops updated quarterly indices for each cost expense category.[7] The AAR weighs each of the categories based on historic weighting factors, sums the weighted expense factors to develop the Preliminary RCAF, and adjusts the Preliminary RCAF for a forecast error factor to develop the final quarterly RCAF index. Many railroads and their shippers subsequently use the RCAF, or portions thereof, to adjust contractual and common carrier rail rates, and the STB has sanctioned and/or ordered its use in many proceedings as a reasonable means of protecting the parties interests.

Because the AAR develops the RCAF index using estimated changes in railroad prices, some may argue that the use of the RCAF to adjust rail rates will not recover actual changes in railroad fuel prices. As indicated above, we demonstrated in WCTL's Opening Statement in this proceeding that changes in the fuel portion of the RCAF index have recovered changes in railroad fuel prices. To further confirm this finding, we developed another test that measures the

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[6]See Railroad Cost Recovery Procedures, 1 I.C.C.2d 207 (1984).

[7]See, for example, STB Ex Parte No. 290 (Sub-No. 5) (2006-4), Quarterly Rail Cost Adjustment Factor, served September 14, 2006.

correlation between changes in UP's and BNSF's fuel prices and changes in the RCAF fuel index.[8] We have displayed the results of our test in Table 1 below.

Table 1
Correlation Between Changes In Railroad Fuel Prices and the RCAF Fuel Component

Railroad	Correlation Coefficient Between Changes In Railroad Fuel Prices and the Fuel Component of the RCAF
(1)	(2)
1.BNSF	0.973
2.UP	0.969

Source: Exhibit No. 3.

As Table 1 above shows, changes in the railroads' fuel prices show an almost perfect correlation with changes in the fuel component of the RCAF. Thus, on average, the RCAF's fuel component moves in almost perfect lock-step with the UP's and BNSF's fuel prices. This indicates that any rate adjustment mechanism that relies upon 100 percent of the change in the

[8]Correlation analysis indicates the strength of linear association between two variables. A correlation coefficient of "1" indicates perfect positive correlation between the two variables, while correlation coefficient of "-1" indicates perfect negative correlation. A correlation coefficient of "0" indicates no correlation between the variables.

RCAF, or the RCAF fuel component, will closely recover any costs associated with changes in railroad fuel prices.[9]

Furthermore, any so-called "lag" between forecasted and actual price changes in the RCAF resulting from the fact that actual price changes are not known until two (2) quarters after the development and approval of the index through the application of the forecast error factor is not a problem. As demonstrated above in Table 1, changes in rail fuel prices correlate almost perfectly with changes in the RCAF fuel index. If there were a large lag impact, one would expect a much lower correlation between changes in the railroads' fuel prices and the RCAF fuel index. In other words, because the correlation coefficients shown above in Table 1 nearly equal one, quarterly changes in the RCAF fuel index closely track, on average, quarterly changes in railroad fuel prices. If there were a lag impact, we would expect lower correlation coefficients, i.e., less than the 0.969 and 0.973, since the changes in the RCAF fuel index and the fuel prices would be "out of step," and not present the strong association shown. Additionally, even if a lag did exist, the lag would only negatively impact the railroads if fuel prices only increased, but never decreased. During times of falling fuel prices, as fuel prices are now experiencing, the railroads would actually benefit from a lag effect in the RCAF because it would allow the railroads to over recover their changes in fuel costs associated with falling fuel prices. Thus, the RCAF is a fair and effective method for railroads to adjust for changes in fuel prices, it is already

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[9]Whether the RCAF index used is adjusted or not adjusted for productivity is irrelevant since both the RCAF, Unadjusted for Productivity ("RCAF-U") and the RCAF, Adjusted for Productivity ("RCAF-A") incorporate the change in the RCAF fuel index component. The latter index, the RCAF-A, also adjusts for changes in railroad productivity.

published quarterly by the STB and is a well-known established mechanism for recovering changes in fuel prices.

B. THE STB MUST APPROVE A FAIR AND EQUITABLE SURCHARGE MECHANISM

If the STB allows the railroads to continue to apply fuel surcharges, notwithstanding the fact that current rate adjustment factors regularly utilized by the railroad industry fully recover changes in fuel prices, the STB must uphold its promise to ensure that the railroads implement fair and equitable fuel price recovery approaches. We believe that the STB's search for a fair and appropriate fuel adjustment mechanism could and should start and end with the RCAF. However, should the Board seek out an alternative mechanism, based on our experiences, a fair and equitable fuel surcharge instrument: 1) would align the fuel surcharge's base period with the base period of the underlying rail rate; 2) would link the surcharge to the movement's primary operating attributes; and 3) would compensate the railroad for increases in fuel prices while protecting shippers from carrier windfall financial gains at their expense when there are falling fuel prices. We explain each aspect of a fair surcharge instrument below.

1. Linking Rate and Surcharge Time Periods

As WCTL indicated in its Opening Statement in this proceeding, the UP's current revenue-based fuel surcharge and the BNSF's revenue-based and mileage-based fuel surcharges irreparably suffer from failures to link the base time period when a rail rate is implemented with

the base time period when the fuel surcharge threshold triggering price level is implemented.[10] In other words, the timing of the fuel costs embedded in BNSF's and UP's rail rates do not necessarily reflect the timing of the price levels of the railroads' fuel surcharges. For example, a 2006 quoted rail rate will reflect the railroad's 2006 fuel costs. If a fuel surcharge is applied to that rate and the fuel surcharge reflects changes in fuel prices beginning in 2002 (base period), an obvious over recovery occurs. This discontinuity between the railroad's fuel cost when it implemented its rates and its fuel price when it implemented its fuel surcharge threshold price leads to a windfall gain for the railroad because it is recovering more than their current price of fuel on the movement.

Under its current fuel surcharge approach, the UP begins applying fuel surcharges to applicable traffic rates when the Energy Information Administration's ("EIA") Retail On-Highway Diesel Price index ("HDF") reaches $1.35 per gallon.[11] Similarly, BNSF begins applying its revenue-based fuel surcharge when the HDF passes $1.239 per gallon, and its mileage-based surcharge when the HDF passes $1.249 per gallon.[12] The UP and BNSF apply these fuel surcharges whether they implemented the underlying rail rate in 2002 or 2006. The primary inequity stems from the failure of the surcharge threshold price to adjust to reflect the timing of the published issue rail rate. Simply stated, the railroads hold the surcharge threshold fuel prices constant without regard to known changes in fuel price increases and the fact that they have increased base rail rates to cover higher fuel costs.

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[10] See WCTL Opening Statement at 24.
[11] See UP's website at www.uprr.com/customers/energy/coal/surcharge.shtml.
[12] See BNSF's website at www.bnsf.com/tools/prices/fuelsurcharge/index.html.

Analysis of the UP's and BNSF's historic fuel prices and historic HDF prices shows that the UP and BNSF implicitly assume that the embedded price of fuel in rail rates subject to fuel surcharges equals the price of fuel the railroads paid in 2002. Specifically, UP implicitly assumes its embedded fuel price base period is 4Q02, while BNSF implicitly assumes its fuel price base period is 1Q02.[13] A review of their respective financial reports shows that UP and BNSF paid, on average, $0.725 and $0.724, respectively, for a gallon of fuel in 2002.[14] By 2Q06, the UP's and BNSF's prices of fuel have increased to $2.15 and $1.83 per gallon, respectively.[15]

It is understandable that both railroads would seek to recover the increase in fuel prices for rates established when they paid approximately $0.73 per gallon. But both railroads have made it well known that they have raised rail rates in the last few years across their customer base in part due to claimed higher fuel prices. Generally, as the price of production inputs increase, holding

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[13]These time periods were developed by running a regression analysis of BNSF's and UP's reported fuel price per gallon against HDF fuel prices. The resulting regression equations were used to develop UP's and BNSF's price of fuel on a dollar per gallon basis at the threshold HDF fuel price indicated in the respective carrier's fuel surcharges. The two time periods referenced represent the latest time periods in which UP's and BNSF's respective fuel price per gallon were at the HDF threshold price level.

[14]See BNSF's Fourth Quarter 2002 Investor's Report and UP's 2002 Analysts Fact Book.

[15]See BNSF's Second Quarter 2006 Investor's Report and UP's Second Quarter 2006 Overview.

all else constant, the railroads will adjust their rates to reflect their higher cost of operations.[16] Therefore, a rail rate established in 2Q06 would have embedded in it an implicit price of fuel equal to BNSF's $1.83 per gallon in 2Q06 or UP's $2.15 per gallon in 2Q06. One can reasonably conclude that the railroads have run-up their rates, in part, due to higher fuel costs. Stated differently, the railroads have raised rates in part due to higher fuel prices. However, under the UP's and BNSF's current fuel surcharge programs, a shipper with a rate established in 2Q06 would pay the same fuel surcharge as if its rate was established in 2002. This is true even though the more current rate already takes into consideration the increased price of fuel.

It is not unheard of for a railroad to rebase its fuel surcharge threshold to reflect changes in the embedded price of fuel in rail rates. The Norfolk Southern Railway ("NS") instituted a fuel surcharge mechanism in March, 2004 when its average price of fuel equaled approximately $0.83 per gallon. NS's fuel surcharge approach, which applied to rates quoted under NS Conditions of Carriage 1-Series or NS Conditions of Carriage 2-Series, had a threshold fuel price level of $23.00 per barrel of West Texas Intermediate ("WTI") crude.[17] In July of this year, NS rebased its fuel surcharge to 2006 fuel price levels for rates issued in mid-year 2006.[18] Under the revised NS fuel surcharge, the threshold WTI crude price level increased to $64.00 per barrel,

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[16]It is well established that the railroads do not base their entire rates on costs, and can and do engage in demand-based differential pricing. See Ex Parte 661 at 4. With that being said, as the ICC stated in its Coal Rate Guidelines decision, it is not economically rational for a railroad to price below its directly variable costs, which would include its cost of fuel. Therefore, as the price of fuel increases, one would rationally expect railroads to increase their rates, holding all production economies constant.

[17]Unlike UP and BNSF, NS and its eastern U.S. counterpart, CSX Transportation, linked their fuel surcharges to changes in WTI crude prices.

[18]See NS Tariff NS 8003.

meaning that at existing WTI crude price levels, customers covered under the revised NS fuel surcharge mechanism would face no fuel surcharge.

The railroads can effectively link the applicable threshold fuel surcharge price to the period in which a rate is implemented. As the STB explained, the railroads' information management capabilities have expanded greatly in the last 20 years, and adjusting revenue programs to account for rebasing price levels is not a great burden.[19] The railroads already retain the time period in which they established the underlying rail rate. Moreover, the STB proposes as part of this proceeding to require the railroads to report their monthly fuel prices. It would require little effort beyond that currently employed to use actual base rate fuel prices in any fuel surcharge application.

In sum, to ensure fairness and equity in the application of any fuel surcharge program, the railroads must link the base time period in the fuel surcharge threshold price level to the base period in the rail rates. Thus, if a railroad issues a rate in 1Q06, then the base time period for the fuel surcharge must equal the railroad's 1Q06 time period for implementing the rate. By not linking the two periods and continuing to apply a fuel surcharge based on 2002 railroad fuel price levels in connection with a 2006 base rate, the railroads fuel surcharge programs are inequitable and unreasonable.

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[19] See Ex Parte 661 at 5.

2. Fuel Surcharges Must Link to Operating Parameters

As explained above, the UP currently uses a single revenue-based fuel surcharge to apply fuel surcharges to applicable rates. The BNSF also currently uses a revenue-based fuel surcharge program applicable to non-coal and non-agricultural movements, and a mileage-based fuel surcharge instrument which is currently applicable only to certain unit coal train and agricultural shipments.[20] The STB agrees with WCTL's uncontroverted evidence in its Opening Statement and recognizes that UP's and BNSF's revenue-based fuel surcharges are unreasonable since they include no reasonable link to the railroads' operations for the movement involved.[21]

To remedy this issue, the STB proposes to require the railroads to tie their fuel surcharge programs to those attributes of a movement that directly impact the amount of fuel consumed. The STB believes that, at a minimum, the key attributes should include mileage, with preferred

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[20] See BNSF's website at www.bnsf.com/tools/prices/fuelsurcharge/index.html for details of the BNSF's fuel surcharge programs.

[21] See Ex Parte 661 at 4.

approaches including both mileage and weight.[22]

The STB's inclusion of weight and mileage attributes is a movement in the right direction. We believe, though, that any equitable surcharge program must include additional attributes as well. The STB, and the ICC before it, recognized that unit train operations are more efficient, and thus, less expensive (per unit transported) to operate than non-unit train operations. A fuel surcharge mechanism should therefore also include the recognition of the efficiencies of unit-train operations.

BNSF is currently taking this approach in its existing mileage-based fuel surcharge program for unit coal trains. BNSF has included in its unit coal train mileage-based fuel surcharge mechanism an implicit fuel consumption rate of 0.167 gallons per loaded car-mile.[23] Based on BNSF's implicit fuel consumption rate for unit-coal trains, BNSF 2005 fuel consumption and BNSF total car-miles by train type, we have estimated the fuel consumption for BNSF's unit and non-unit train operations. We display our calculations in Exhibit No. 4 to this Verified Statement and summarize the results in Table 2 below.

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[22] See Ex Parte 661 at 5.

[23] The BNSF's coal unit-train fuel surcharge assumes each $0.06 per gallon increase in fuel prices equals a $0.01 per car-mile increase in the fuel surcharge. This would mean that BNSF's unit-coal trains consume 0.167 gallons per loaded car-mile assuming that BNSF's mileage-based fuel surcharge is equal to the fuel consumption per loaded car-mile multiplied by the number of car-miles multiplied by the change in fuel price.

Table 2
BNSF Fuel Consumption Per Loaded Car-Mile
For Unit Train and Non-Unit Train Operations

Train Type	Fuel Consumption Per Loaded Car-Mile (Gallon)
(1)	(2)
1.Unit Train	0.167
2.Non-Unit Train	0.253

Source: Exhibit No. 4.

As shown in Table 2 above, BNSF's estimated fuel consumption for unit train and non-unit train operations equals 0.167 and 0.253 gallons per loaded car-mile, respectively. Given the close similarity in BNSF's and UP's operations, we believe that UP would achieve similar fuel consumption rates in its unit and non-unit train operations.[24]

Including weight, mileage and train type as attributes in a fuel surcharge formula would provide a more equitable answer than just using mileage alone. While the actual weight may be the ideal metric to use to develop a fuel surcharge, and is suitable for use when it involves the movement of coal in unit trains, it is impractical for use in an industry-wide application since many shipments are rated on a per-carload or per-container basis. For example, BNSF applies its

[24]This assumption is supported by the fact that the vast majority of both railroads' coal shipments originate in the same location, the Powder River Basin, and are transported over similar distances to similar locations.

coal unit train mileage-based fuel surcharge on a carload basis rather than on a weight basis.[25] One may presume that BNSF took this approach for both convenience and universal applicability. Therefore, for consistency purposes, and to further the goal of simplicity in fuel surcharge application, the operating characteristic should be based on the number of cars and not the total weight transported, which may be unknown.

1. Declining Fuel Prices Should Not Provide Windfall Gains

The railroads began imposing fuel surcharges for the ostensive reason that they needed such programs in order to recoup sudden increases in their fuel prices. Shippers generally recognize that the railroads are interested in recovering the increased costs they incur from raising fuel prices.[26] This generality also has a corollary in that shippers generally expect that the railroads will share in the gains brought about by falling fuel prices. Therefore, in those instances where railroad fuel surcharges are authorized to be implemented if the railroads' fuel prices increase above a base price level, then a fuel surcharge would be applicable. Similarly, if the railroads' fuel price declines below the base price, credits should be applied. In this fashion, the fuel surcharge protects railroads from unexpected spikes in fuel prices, while a negative fuel surcharge, or fuel credit, protects shippers from windfall railroad gains at their expense.

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[25] See BNSF's website at www.bnsf.com/tools/prices/fuelsurcharge/coalunittrain.html for full details of the BNSF's mileage-based fuel surcharges for coal.

[26] See Ex Parte 661 at 2.

C. A FORMULA FOR AN EQUITABLE FUEL SURCHARGE

Given the above discussion about the attributes of a fair and equitable fuel surcharge, as an alternative to implementation of RCAF, we have developed a fuel surcharge formula that both protects railroads from dramatic increases in fuel prices, while allowing shippers to share the benefits commensurate with the increased risk born by the surcharges imposed. Specifically, our fuel surcharge per carload approach includes the following:

Fuel Surcharge = GPC x Mileage x (Current Fuel Price - Base Fuel Price)

Where:

GPC	=	Average Fuel Consumption Per Loaded Car-Mile By Shipment Type (see Table 2 above)
Mileage	=	The loaded standard mileage for the movement
Current Fuel Price	=	The railroad's average price per gallon of fuel as reported in the previous month
Base Fuel Price	=	The railroad's average price per gallon of fuel during the month the rate was implemented.

The above fuel surcharge formula fully and fairly offsets actual changes in railroad fuel prices. Additionally, the formula benefits both shippers and railroads in its simplicity of implementation. The railroads' fuel consumption per loaded car-mile can easily be estimated from publicly available railroad operating statistics. Similarly, both parties can determine the loaded mileage for each movement based on railroad mileage calculators or commercially available mileage statistics. Railroads, in the normal course of business, track their fuel expenses on a monthly basis, and reporting the average monthly fuel price paid on a one month delayed

basis is of no great burden to the railroads. Finally, as indicated above, a railroad should have no issues linking its monthly reported fuel price to the base period of the underlying rail rate.

The above proposed formula also benefits both railroads and shippers in its equitability of risk sharing. It compensates a railroad for any increases in fuel prices above the base period fuel price, thus protecting it from unexpected peaks in fuel prices. It links the fuel charge to the railroad's operation for the particular movement thereby ensuring the railroad's fuel price recovery maintains some nexus to the movement. It protects a shipper from absorbing the risks of higher fuel prices without sharing the commensurate gains from falling fuel prices. And finally, it directly ties the fuel price inherent in the transportation rate to the fuel recovery base period.

III. FUEL PRICE INDICES

The STB proposes to require all Class I railroads to use a single, uniform index to measure changes in fuel prices. Pursuant to this proposal, the STB suggests that the best index available to gauge changes in railroad fuel prices is the EIA's No. 2 Diesel Retail Sales index also known as the HDF index.[27] This is based on the assertion that the No. 2 Diesel Retail Sales index is the most broad based fuel price index published by the EIA, and the changes strongly correlate with changes in other fuel price indices, including the EIA's Refiner Prices of Petroleum Products to End Users index and the AAR's Fuel Cost index. In addition, the STB believes that because the EIA publishes the No. 2 Diesel Retail Sales index with only a one (1) month lag, it is a better index than others which have two to three month lags.[28]

As we explained above, there is no real need to utilize a third-party fuel price index to account for changes in railroad fuel prices due to the ability of the railroads to utilize their actual change in fuel prices in any fuel surcharge mechanism developed. The railroads customarily produce operating expense information on a monthly basis. It is a simple process to utilize the railroad's fuel price information on a one-month lagged basis in any fuel surcharge application.

If the STB ultimately chooses to not use actual changes in railroad fuel prices, then we believe the No. 2 Diesel Retail Sales index is a suitable substitute, with one caveat. Whatever

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[27]In its historic tables, EIA refers to this index as the No. 2 Diesel Retail Sales index and in its weekly and monthly updates, EIA refers to this index as HDF. These indexes are interchangeable.

[28]See Ex Parte 661 at 6.

fuel price index is eventually chosen, whether it be actual fuel prices, the No. 2 Diesel Retail Sales index, or another fuel index, as explained above, the STB must require that the railroads link the base period of the fuel surcharge to the base period of the underlying rail rate. Not linking the fuel surcharge base period to the base period of the rate may lead to a windfall gains by the railroads, and violate the STB's admonishment of linking fuel surcharges to actual operations and costs.

IV. RAILROAD REPORTING REQUIREMENTS

The STB proposes to require the Class I railroads to file on a monthly basis data regarding their fuel usage and prices. Specifically, the STB believes that, at a minimum, the railroads should report the following information:

1. Total fuel expense;
2. Total fuel consumed;
3. Increases or decreases in price of fuel;
4. Revenue from fuel surcharges;
5. Revenue from fuel surcharges collected on joint shipments with Class II and III railroads;
6. Fuel surcharge revenues shared with the Class II and III carriers;
7. The ton-miles on which the fuel surcharge was applied; and
8. Total ton-miles.

While we agree that the above operating and financial metrics would be helpful in judging the impact and effects of the railroads' fuel price recovery programs, we also believe that the proposed reporting requirements have several shortcomings. First, many of the reporting statistics are reported on inconsistent bases. For example, the STB's proposal requires the railroads to report the first three reporting statistics - total fuel expense, total fuel consumed and increases or decreases in fuel prices - on a system-wide basis. However, the STB's proposal would have the railroads report the next three statistics - revenue from fuel surcharges, revenues from fuel surcharges revenues collected on joint shipments with Class II and Class III carriers,

and fuel surcharge revenues shared with the Class II and Class III carriers - for only a subset of the railroads' total traffic. Effective management should seek to require the railroads to report all statistics on a common basis.

Second, the above reporting requirements do not allow shippers, or the STB, to determine if, or by how much, railroads would continue to "double dip" recovery of changes in fuel prices. In other words, the proposed reporting requirements do not reflect the recovery of changes in fuel prices from other rate adjustment mechanisms such as through the application of the RCAF which includes changes in railroad fuel prices.

Third, the proposed traffic categories are too narrow and would not allow the STB and shippers to adequately determine if one type of traffic or traffic group is disproportionately supplying a majority of the railroad's fuel price recovery (again, this requires a review of other non-fuel surcharge rate adjustment mechanism data under which railroads recover changes in railroad fuel prices).

To eliminate the above shortcomings in the STB's proposed reporting requirements, we recommend that the STB expand the breadth and depth of the statistics reported by the railroads. Specifically, we recommend that the STB require the railroads to report each statistic in their monthly report by major commodity group as reported in the railroad's financial reports, and separated between interchange and non-interchange traffic. Such reporting metrics, along with total revenue, ton-miles, car-miles and train-miles by commodity and interchange category,

would provide some clarity in the railroads' reporting of their fuel surcharge programs, and help foster some of the reporting transparency sought by the Board and shippers.[29]

In addition, we recommend that the STB require the Class I railroads to report the amount of funds recovered through both fuel surcharge and non-surcharge fuel price recovery mechanisms by each commodity and interchange group. The railroads have attempted to portray their fuel surcharge programs as being unable to recover all increases in the price of fuel due their inability to apply fuel surcharges to all movements.[30] The railroads support their argument by comparing their cumulative increases in fuel costs attributable to changes in fuel prices to their total fuel surcharge revenues. These comparisons, though, do not reveal whether the railroads are actually recovering losses due to higher fuel prices because they exclude increases in revenues from non-fuel surcharge recovery mechanisms such as the fuel component in the RCAF. Having the railroads report revenues associated with surcharge and non-surcharge based fuel price recovery methods would show whether the railroads are truly not recovering costs associated with increased fuel prices, and provide the transparency to substantiate their claims.

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[29] See Ex Parte 661 at 3.
[30] Id.

VERIFICATION

COMMONWEALTH OF VIRGINIA)
)
CITY OF ALEXANDRIA)

I, THOMAS D. CROWLEY, verify under penalty of perjury that I have read the foregoing Verified Statement of Thomas D. Crowley, that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Thomas D. Crowley

Sworn to and subscribed
before me this day of September 29,2006.

Anthony V. Evanshaw III
Notary Public for the State of Virginia

My Commission expires: September 30, 2007

VERIFICATION

COMMONWEALTH OF VIRGINIA)
)
CITY OF ALEXANDRIA)

I, DANIEL L. FAPP, verify under penalty of perjury that I have read the foregoing Verified Statement of Daniel L. Fapp, that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Daniel L. Fapp

Sworn to and subscribed
before me this day of September 29,2006.

Anthony V. Evanshaw III
Notary Public for the State of Virginia

My Commission expires: September 30, 2007

STATEMENT OF QUALIFICATIONS

My name is Thomas D. Crowley. I am an economist and President of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Suite 200, Alexandria, Virginia 22314 and 5901 N. Cicero Avenue, Suite 504, Chicago, Illinois 60646.

I am a graduate of the University of Maine from which I obtained a Bachelor of Science degree in Economics. I have also taken graduate courses in transportation at George Washington University in Washington, D.C. I spent three years in the United States Army and since February 1971 have been employed by L. E. Peabody & Associates, Inc.

I am a member of the American Economic Association, the Transportation Research Forum, and the American Railway Engineering and Maintenance-of-Way Association.

The firm of L. E. Peabody & Associates, Inc. specializes in solving economic, marketing and transportation problems. As an economic consultant, I have organized and directed economic studies and prepared reports for railroads, freight forwarders and other carriers, for shippers, for associations and for state governments and other public bodies dealing with transportation and related economic problems. Examples of studies I have participated in include organizing and directing traffic, operational and cost analyses in connection with multiple car movements, unit train operations for coal and other commodities, freight forwarder facilities, TOFC/COFC rail facilities, divisions of through rail rates, operating commuter passenger service, and other studies dealing with markets and the transportation by different modes of various commodities from both eastern and western origins to various destinations in the United States. The nature of these

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studies enabled me to become familiar with the operating practices and accounting procedures utilized by railroads in the normal course of business.

Additionally, I have inspected and studied both railroad terminal and line-haul facilities used in handling various commodities, and in particular unit train coal movements from the Powder River Basin to various utility destinations in the midwestern and western portions of the United States and from the Eastern Coal Fields to various destinations in the Mid-Atlantic, northeastern and southeastern portions of the United States. These operational reviews and studies were used as a basis for the determination of the traffic and operating characteristics for specific movements of coal and numerous other commodities handled by rail.

I have frequently been called upon to develop and coordinate economic and operational studies relative to the acquisition of coal and the rail transportation of coal on behalf of electric utility companies. My responsibilities in these undertakings included the analyses of rail routes, rail operations and an assessment of the relative efficiency and costs of railroad operations over those routes. I have also analyzed and made recommendations regarding the acquisition of railcars according to the specific needs of various coal shippers. The results of these analyses have been employed in order to assist shippers in the development and negotiation of rail transportation contracts which optimize operational efficiency and cost effectiveness.

Moreover, I have developed numerous variable cost calculations utilizing the various formulas employed by the Interstate Commerce Commission ("ICC") and the Surface Transportation Board ("STB") for the development of variable costs for common carriers, with particular emphasis on

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the basis and use of Rail Form A and its replacement costing formula the Uniform Railroad Costing System ("URCS"). I have utilized Rail Form A/URCS costing principles since the beginning of my career with L. E. Peabody & Associates Inc. in 1971.

I have frequently presented both oral and written testimony before the ICC, STB, Federal Energy Regulatory Commission, Railroad Accounting Principles Board, Postal Rate Commission and numerous state regulatory commissions, federal courts and state courts. This testimony was generally related to the development of variable cost of service calculations, rail traffic and operating patterns, fuel supply economics, contract interpretations, economic principles concerning the maximum level of rates, implementation of maximum rate principles, and calculation of reparations or damages, including interest. I presented testimony before the Congress of the United States, Committee on Transportation and Infrastructure on the status of rail competition in the western United States. I have also presented testimony in a number of court and arbitration proceedings concerning the level of rates, rate adjustment procedures, rail operating procedures and other economic components of specific contracts.

Since the implementation of the *Staggers Rail Act of 1980*, which clarified that rail carriers could enter into transportation contracts with shippers, I have been actively involved in negotiating transportation contracts on behalf of coal shippers. Specifically, I have advised utilities concerning coal transportation rates based on market conditions and carrier competition, movement specific service commitments, specific cost-based rate adjustment provisions, contract reopeners that recognize changes in productivity and cost-based ancillary charges.

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I have been actively engaged in negotiating coal supply contracts for various users throughout the United States. In addition, I have analyzed the economic impact of buying out, brokering, and modifying existing coal supply agreements. My coal supply assignments have encompassed analyzing alternative coals to determine the impact on the delivered price of operating and maintenance costs, unloading costs, shrinkage factor and by-product savings.

I have developed different economic analyses for over sixty (60) electric utility companies located in all parts of the United States, and for major associations, including American Paper Institute, American Petroleum Institute, Chemical Manufacturers Association, Coal Exporters Association, Edison Electric Institute, Mail Order Association of America, National Coal Association, National Industrial Transportation League, North America Freight Car Association, the Fertilizer Institute and Western Coal Traffic League. In addition, I have assisted numerous government agencies, major industries and major railroad companies in solving various economic problems.

In the two Western rail mergers that resulted in the creation of BNSF Railway Company and Union Pacific Railroad Company and in the acquisition of Conrail by Norfolk Southern Railroad Company and CSXT, I reviewed the railroads' applications including their supporting traffic, cost and operating data and provided detailed evidence supporting requests for conditions designed to maintain the competitive rail environment that existed before the proposed mergers and acquisition. In these proceedings, I represented shipper interests, including plastic, chemical, coal, paper and steel shippers.

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I have participated in various proceedings involved with the division of through rail rates. For example, I participated in ICC Docket No. 35585, *Akron, Canton & Youngstown Railroad Company, et al. v. Aberdeen and Rockfish Railroad Company, et al.* which was a complaint filed by the northern and midwestern rail lines to change the primary north-south divisions. I was personally involved in all traffic, operating and cost aspects of this proceeding on behalf of the northern and midwestern rail lines. I was the lead witness on behalf of the Long Island Rail Road in ICC Docket No. 36874, *Notice of Intent to File Division Complaint by the Long Island Rail Road Company*.

As a result of my extensive economic consulting practice since 1971 and my participating in maximum-rate, rail merger, and rule-making proceedings before various government and private governing bodies, I have become thoroughly familiar with the operations, practices and costs of the rail carriers that move coal over the major coal routes in the United States.

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My name is Daniel L. Fapp. I am Assistant Vice President of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Suite 200, Alexandria, VA 22314 and 5901 N. Cicero Avenue, Suite 504, Chicago, IL 60646.

I received a Bachelor of Science degree in Business Administration with an option in Marketing (cum laude) from the California State University, Northridge in 1987, and a Master of Business Administration degree from the University of Arizona's Eller School of Management in 1993, specializing in finance and operations management. I am also a member of Beta Gamma Sigma, the national honor society for collegiate schools of business.

I have been employed by L. E. Peabody & Associates, Inc. since December 1997. Prior to joining L. E. Peabody & Associates, Inc., I was employed by BHP Copper Inc. in the role of Transportation Manager - Finance and Administration, and where I also served as an officer of the three BHP Copper Inc. subsidiary railroads, The San Manual Arizona Railroad, the BHP Arizona (formerly Magma Arizona) Railroad and the BHP Nevada Railroad. I have also held operations management positions with Arizona Lithographers in Tucson, AZ and MCA-Universal Studios in Universal City, CA.

While at BHP Copper Inc., I was responsible for all financial and administrative functions of the company's transportation group. I also directed the BHP Copper Inc. subsidiary railroads' cost and revenue accounting staff, and managed the San Manuel Arizona Railroad's and BHP Arizona Railroad's dispatchers and the railroad dispatching functions. I served on the company's Commercial and Transportation Management Team and the company's Railroad Acquisition Team

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where I was responsible for evaluating the acquisition of new railroads. While with MCA-Universal Studios, I held several operations management positions, including Tour Operations Manager, where my duties included vehicle routing and scheduling, personnel scheduling, forecasting facilities utilization, and designing and performing queuing analyses.

As part of my work for L. E. Peabody & Associates, Inc., I have performed and directed numerous projects and analyses undertaken on behalf of utility companies, short line railroads, bulk shippers, and industry and trade associations. Examples of studies which I have participated in organizing and directing include, traffic, operational and cost analyses in connection with the rail movement of coal, metallic ores, pulp and paper products, and other commodities. I have also analyzed multiple car movements, unit train operations, divisions of through rail rates and switching operations throughout the United States. The nature of these studies enabled me to become familiar with the operating procedures utilized by railroads in the normal course of business.

Since 1997, I have participated in the development of cost of service analyses for the movement of coal over the major eastern and western coal-hauling railroads. I have conducted on-site studies of switching, detention and line-haul activities relating to the handling of coal. I have also participated in and managed several projects assisting short-line railroads. In these engagements, I assisted short-line railroads in their negotiations with connecting Class I carriers, performed railroad property and business evaluations, and worked on rail line abandonment projects.

I have been frequently called upon to perform financial analyses and assessments of Class I, Class II and Class III railroad companies. In addition, I have developed various financial models

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exploring alternative methods of transportation contracting and cost assessment, developed corporate profitability and cost studies, and evaluated capital expenditure requirements.

In my tenure with L. E. Peabody & Associates, Inc., I have assisted in the development and presentation of traffic and revenue forecasts, operating expense forecasts, and discounted cash-flow models which were presented in numerous proceedings before the STB. I presented evidence applying the STB's stand-alone cost procedures in Docket Number 42057, Public Service Company of Colorado d/b/a Xcel Energy v. The Burlington Northern and Santa Fe Railway Company, and in Docket Number 42071, Otter Tail Power Company v. BNSF Railway Company. In addition, my reports have been used as evidence before the Nevada State Tax Commission.

Quarterly Adjusted Rail Cost Adjustment Factor Fuel Index

Time Period	RCAF Fuel Index 1/	Forecast Error 1/	Adjusted Forecast Error 2/	Fuel Weight 1/	Previous Quarter's Weighted Average Index 1/	Previous Quarter's Linked Index 1/	Linking Factor 3/	Linked Adjusted Forecast Error 4/	Adjusted RCAF Fuel Index Value 5/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. 1Q 1997	96.5	0.003	0.003	7.3	174.4	170.4	1.0235	0.307	96.52
2. 2Q 1997	78.8	0.008	0.008	7.3	178.8	174.7	1.0235	0.819	78.86
3. 3Q 1997	83.1	-0.001	-0.001	7.3	177.8	173.7	1.0236	-0.102	83.09
4. 4Q 1997	80.7	0.000	0.000	8.9	178.4	174.6	1.0218	0.000	80.70
5. 1Q 1998	81.3	-0.001	-0.001	8.9	177.0	173.2	1.0219	-0.113	81.29
6. 2Q 1998	70.3	0.006	0.007	8.9	176.5	172.7	1.0220	0.677	70.36
7. 3Q 1998	71.3	-0.003	-0.003	8.9	175.3	171.5	1.0222	-0.339	71.27
8. 4Q 1998	68.3	0.002	0.002	8.6	178.6	173.4	1.0300	0.227	68.32
9. 1Q 1999	63.1	-0.003	-0.003	8.6	178.5	173.3	1.0300	-0.341	63.07
10. 2Q 1999	55.2	-0.001	-0.001	8.6	178.2	173.0	1.0301	-0.114	55.19
11. 3Q 1999	66.3	-0.004	-0.004	8.6	177.3	172.1	1.0302	-0.455	66.26
12. 4Q 1999	75.9	0.006	0.007	7.0	179.5	174.2	1.0304	0.683	75.95
13. 1Q 2000	90.1	0.007	0.008	7.0	179.4	174.1	1.0304	0.796	90.16
14. 2Q 2000	102.6	0.009	0.010	7.0	184.9	179.4	1.0307	1.024	102.67
15. 3Q 2000	98.7	0.002	0.002	7.0	185.8	180.3	1.0305	0.228	98.72
16. 4Q 2000	123.4	0.003	0.003	7.1	186.9	181.6	1.0292	0.341	123.42
17. 1Q 2001	129.7	0.006	0.007	7.1	188.1	182.9	1.0284	0.681	129.75
18. 2Q 2001	102.7	0.004	0.004	7.1	192.2	186.9	1.0284	0.454	102.73
19. 3Q 2001	108.3	0.000	0.000	7.1	190.9	185.6	1.0286	0.000	108.30
20. 4Q 2001	108.5	0.004	0.004	10.7	187.7	186.9	1.0043	0.443	108.55
21. 1Q 2002	87.4	0.000	0.000	10.7	186.9	186.1	1.0043	0.000	87.40
22. 2Q 2002	82.5	-0.002	-0.002	10.7	187.2	186.4	1.0043	-0.222	82.48
23. 3Q 2002	94.4	-0.010	-0.011	10.7	185.0	184.2	1.0043	-1.109	94.28
24. 4Q 2002	103.5	0.012	0.015	10.5	188.1	185.6	1.0135	1.488	103.66
25. 1Q 2003	100.7	0.004	0.005	10.5	192.5	189.9	1.0137	0.496	100.75
26. 2Q 2003	130.4	0.009	0.011	10.5	193.2	190.6	1.0136	1.116	130.52
27. 3Q 2003	106.3	0.014	0.017	10.5	196.9	194.3	1.0134	1.735	106.48
28. 4Q 2003	113.3	-0.003	-0.004	9.0	197.0	193.3	1.0191	-0.374	113.27
29. 1Q 2004	110.8	0.007	0.009	9.0	199.6	195.9	1.0189	0.872	110.88
30. 2Q 2004	120.8	0.007	0.009	9.0	199.3	195.6	1.0189	0.872	120.88
31. 3Q 2004	137.7	0.016	0.020	9.0	200.8	197.1	1.0188	1.994	137.88
32. 4Q 2004	148.3	0.022	0.027	10.6	205.7	202.6	1.0153	2.732	148.59

	Time Period	RCAF Fuel Index 1/	Forecast Error 1/	Adjusted Forecast Error 2/	Fuel Weight 1/	Previous Quarter's Weighted Average Index 1/	Previous Quarter's Linked Index 1/	Linking Factor 3/	Linked Adjusted Forecast Error 4/	Adjusted RCAF Fuel Index Value 5/
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
33.	1Q 2005	171.5	0.010	0.012	10.6	209.7	206.5	1.0155	1.242	171.63
34.	2Q 2005	186.9	0.030	0.037	10.6	214.0	210.7	1.0157	3.727	187.30
35.	3Q 2005	193.6	0.006	0.007	10.6	218.3	214.9	1.0158	0.746	193.68
36.	4Q 2005	276.2	0.012	0.015	12.1	219.1	217.0	1.0097	1.482	276.38
37.	1Q 2006	226.4	0.011	0.013	12.1	227.5	225.3	1.0098	1.359	226.56
38.	2Q 2006	227.9	0.013	0.016	12.1	226.1	223.9	1.0098	1.606	228.09

1/ Source: STB Decisions in Ex Parte No. 290, Quarterly Rail Cost Adjustment Factor
2/ Adjusted to reflect the rebasing of the RCAF-U in 4Q 1997 and 4Q 2002.
3/ Column (6) ÷ Column (7). Linking is necessitated by annual changes in weighting factors.
4/ Column (3) x Column (8) x 100
5/ Column (2) + [(Column (5) ÷ 100) x Column 9]. To allocate the forecast error to the fuel component of the RCAF

Correlation Between The RCAF Fuel Index And UP And BNSF Fuel Prices

	Time Period	Adjusted RCAF Fuel Index Value 1/	BNSF Quarterly Fuel Price (Cents/Gallon) 2/	UP Quarterly Fuel Price (Cents/Gallon) 3/
	(1)	(2)	(3)	(4)
1.	1Q 1997	96.52	72.8	75.0
2.	2Q 1997	78.86	69.2	71.0
3.	3Q 1997	83.09	64.8	67.0
4.	4Q 1997	80.70	66.9	70.0
5.	1Q 1998	81.29	63.3	64.0
6.	2Q 1998	70.36	63.5	63.0
7.	3Q 1998	71.27	62.4	60.0
8.	4Q 1998	68.32	61.4	60.0
9.	1Q 1999	63.07	56.3	50.0
10.	2Q 1999	55.19	58.5	56.0
11.	3Q 1999	66.26	57.6	56.0
12.	4Q 1999	75.95	63.2	60.0
13.	1Q 2000	90.16	72.3	81.0
14.	2Q 2000	102.67	76.6	84.0
15.	3Q 2000	98.72	78.8	92.0
16.	4Q 2000	123.42	89.7	103.0
17.	1Q 2001	129.75	86.5	92.0
18.	2Q 2001	102.73	84.0	92.0
19.	3Q 2001	108.30	82.5	86.0
20.	4Q 2001	108.55	77.7	81.0
21.	1Q 2002	87.40	65.0	61.0
22.	2Q 2002	82.48	73.1	72.0
23.	3Q 2002	94.28	73.9	75.0
24.	4Q 2002	103.66	77.7	81.0
25.	1Q 2003	100.75	93.8	100.0
26.	2Q 2003	130.52	88.6	88.0
27.	3Q 2003	106.48	88.0	90.0
28.	4Q 2003	113.27	85.4	89.0
29.	1Q 2004	110.88	86.7	102.0
30.	2Q 2004	120.88	96.7	116.0
31.	3Q 2004	137.88	98.8	125.0
32.	4Q 2004	148.59	114.1	146.0
33.	1Q 2005	171.63	113.3	145.0
34.	2Q 2005	187.30	132.5	167.0
35.	3Q 2005	193.68	143.0	188.0
36.	4Q 2005	276.38	169.1	208.0
37.	1Q 2006	226.56	155.8	187.0
38.	2Q 2006	228.09	183.0	215.0
39.	**Correlation 4/**	---	**0.973**	**0.969**

1/ Source: Pages 1 and 2, Column (10)
2/ Source: BNSF Quarterly Investor Reports and Quarterly Earnings Releases
3/ Source: UP Annual Analysts Fact Books and Quarterly Earnings Releases
4/ Correlation between Adjusted RCAF Fuel Index (Column (2)) and BNSF's and UP's Quarterly Fuel Prices (Columns (3) and (4)).

Development of BNSF's 2005 Average Fuel Consumption Per Car-Mile By Train Type

	Item (1)	Source (2)	Statistics (3)
1.	Total Fuel Consumption (gallons)	Schedule 750, Line 4	1,402,347,000
2.	Loaded Railroad Car-Miles (thousands)	Schedule 755, Line 30	2,184,694
3.	Loaded Private Car-Miles (thousands)	Schedule 755, Line 64	2,376,939
4.	Total Work Equipment and Company Freight Car-Miles (thousands)	Schedule 755, Line 83	56,382
5.	Total No Payment Car-Miles (thousands)	Schedule 755, Line 84	3,789,621
6.	Total Unit Train Car-Miles (thousands)	Schedule 755, Line 85	5,504,457
7.	Estimated Total Loaded Car-Miles (thousands)	L. 2 + L. 3 + (L. 4 ÷ 2) + (L. 5 ÷ 2)	6,484,635
8.	Estimated Non-Unit Train Loaded Car-Miles (thousands)	L. 7 - (L. 6 ÷ 2)	3,732,406
9.	Estimated System Average Fuel Consumption Per Loaded Car-Mile (gallons)	(L. 1 ÷ 1,000) ÷ L. 7	0.216
10.	Average Fuel Consumption Per Loaded Car-Mile For Unit Trains (gallons)	BNSF Mileage-Based Fuel Surcharge 1/	0.167
11.	Estimated Fuel Consumption Per Loaded Car-Mile for Non-Unit Trains (gallons)	[(L. 1 ÷ 1,000) - (L. 6 x L. 10 ÷ 2)] ÷ L. 8	0.253

1/ BNSF 's coal unit-train mileage-based fuel surcharge assumes each $0.06 increase in fuel prices equals a $0.01 per car-mile increase in the fuel surcharge. This indicates that BNSF's unit-trains consume 0.167 gallons per loaded car-mile assuming that the mileage-based fuel surcharge is equal to the fuel consumption per loaded car-mile multiplied by the number of car-miles multiplied by the change in fuel price.