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February 13, 2012

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Ms. Cynthia T. Brown  
Chief, Section of Administration  
Office of Proceedings  
Surface Transportation Board  
395 E Street, S.W.  
Washington, D.C. 20423-0001

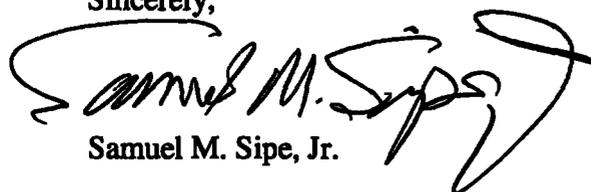
Re: ***Canexus Chemicals Canada L.P. v. BNSF Railway Company,***  
**STB Docket No. 42132**

Dear Ms. Brown:

Enclosed for filing in the above-captioned matter is the public version of BNSF Railway Company's Opening Evidence. We have redacted highly confidential and confidential information from the filing, including waybill sample data. We are filing under separate cover the highly confidential and confidential versions of BNSF's Opening Evidence, and a CD that contains electronic work papers of Mr. Fisher.

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

Sincerely,



Samuel M. Sipe, Jr.

Enclosures

cc: Counsel of Record

**PUBLIC**

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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**CANEXUS CHEMICALS CANADA, L.P.**

**Complainant,**

**v.**

**BNSF RAILWAY COMPANY**

**Defendant.**

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**Docket No. 42132**

**OPENING EVIDENCE OF BNSF RAILWAY COMPANY**

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February 13, 2012

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- Exhibit 2 – BNSF Price Authority 90096, Amendment 20
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BEFORE THE  
SURFACE TRANSPORTATION BOARD

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<b>CANEXUS CHEMICALS CANADA, L.P.</b>	)	)
	)	)
<b>Complainant,</b>	)	)
	)	)
<b>v.</b>	)	<b>Docket No. 42132</b>
	)	)
<b>BNSF RAILWAY COMPANY</b>	)	)
	)	)
<b>Defendant.</b>	)	)
<hr/>		)

**OPENING EVIDENCE OF BNSF RAILWAY COMPANY**

**I. INTRODUCTION AND SUMMARY**

Canexus Chemicals Canada, L.P. (“Canexus”) has challenged the reasonableness of BNSF Railway Company’s (“BNSF”) current rates on two movements of chlorine, one from North Vancouver, BC, to Glendale, AZ, and a second from North Vancouver, BC, to Albuquerque, NM. Canexus has elected to proceed under the Board’s simplified Three-Benchmark rate standard adopted in *Simplified Standards for Rail Rate Cases*, STB Ex Parte No. 646 (Sub-No. 1) (served Sept. 5, 2007) (hereafter “*Simplified Standards*”). This is BNSF’s Opening Evidence in response to Canexus’ rate reasonableness challenge.<sup>1</sup>

**A. Unique Aspects of this Case**

The purpose of a Three-Benchmark case is to examine the level of rates charged on current issue traffic movements and determine whether the contribution realized on the issue traffic movements is excessive compared to the contribution generated by the carrier’s current

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<sup>1</sup> Throughout BNSF’s Opening Evidence, confidential materials are designated by a single bracket – “{” and highly confidential materials are designated with double brackets – “{{”.

rates on comparable movements.<sup>2</sup> Canexus acknowledges that its rate case was prompted by a significant increase in BNSF's rates on movements of chlorine and other Toxic by Inhalation ("TIH") chemical traffic that took effect on March 16, 2011. Canexus Complaint, at ¶ 8. Although Canexus chose to single out the rates on the two movements at issue here for challenge, it is undisputed that the rate increases on those movements were part of a broader change in BNSF's pricing structure for all TIH traffic administered by BNSF's Industrial Products ("IP") Marketing group.<sup>3</sup> Canexus admits that this broader change affected all of Canexus' shipments of TIH traffic on BNSF, as well as TIH shipments for other shippers moving traffic on BNSF.

As explained by David Garin, BNSF's Group Vice President, IP Marketing, the March 2011 modifications to the rate structure and levels applicable to TIH traffic constituted a major change intended to bring BNSF's pricing and marketing of that traffic into line with current market realities affecting the transportation of chlorine and other TIH traffic.<sup>4</sup> Notably, while BNSF's price increases on the issue traffic chlorine movements and other chlorine movements were pronounced, the resulting rates and R/VC ratios did not reach levels that are unusual in the current market for the rail transportation of chlorine. Current R/VC ratios on the two issue

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<sup>2</sup> *Simplified Standards*, at 17, 73; *Arizona Elec. Power Coop., Inc. v. BNSF Ry. Co. & Union Pac. R.R. Co.*, STB Docket No. 42113, at 33 (served Nov. 22, 2011) (hereafter "AEPCO").

<sup>3</sup> Pricing on BNSF movements of anhydrous ammonia, another TIH commodity, is handled by BNSF's Agricultural Products Marketing Group and was not subject to the March 2011 pricing increase applicable to the issue traffic.

<sup>4</sup> Verified Statement of David Garin dated December 14, 2011 accompanying BNSF's Motion to Permit Consideration of 2011 TIH Movements from BNSF Traffic Data in Selecting Comparison Group (hereafter "Motion to Use 2011 Data"). Mr. Garin's verified statement is attached as Exhibit 1. Documents referenced in BNSF's Opening Evidence but not attached as exhibits are included on an electronic workpaper CD, including public documents and documents BNSF produced in discovery.

traffic movements are 291% for the movement to Glendale and 306% for the movement to Albuquerque.<sup>5</sup>

The Board has twice prescribed maximum reasonable rates on chlorine movements in recent years. In *DuPont v. CSX* (decided June 27, 2008) the Board prescribed maximum reasonable rates under the Three-Benchmark method of 287% and 321% on the challenged chlorine movements.<sup>6</sup> In *U.S. Magnesium v. Union Pacific* (decided more recently on January 27, 2010), the Board prescribed maximum reasonable rates under the Three-Benchmark method of 346% and 356% on the challenged chlorine movements.<sup>7</sup> The level of BNSF's challenged rates and resulting R/VC ratios cannot be viewed as excessive in light of the Board's recent experience.

Of course, BNSF understands that under the Three-Benchmark method BNSF's challenged rates are not to be judged by comparison to R/VC ratios of similar movements on other Class I carriers, prescribed or otherwise. Rather, BNSF's challenged rates are to be judged by comparison to R/VC ratios of comparable BNSF movements. Under that standard, the outcome in this case should be straightforward. BNSF's rates on the issue traffic movements should be assessed by reference to the R/VC ratios produced by the comparable movements that were also subject to the broad rate increases taken in March 2011. When the issue traffic rates are compared to BNSF's current rates for comparable traffic, it is clear that the issue traffic was not singled out to make an excessive contribution to BNSF's joint and common costs and that the

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<sup>5</sup> BNSF workpaper "2011 Issue RVC.xlsx."

<sup>6</sup> *E.I. DuPont De Nemours & Co. v. CSX Transp., Inc.* STB Docket No. 42100, at 18 (served June 30, 2008) (hereafter "*DuPont*").

<sup>7</sup> *US Magnesium v. Union Pacific R.R. Co.*, STB Docket No. 42114, at 1-2 (served Jan. 28, 2010) (hereafter "*US Magnesium*").

issue traffic rates therefore do not exceed reasonable maximum rates under the Three-Benchmark test.

Consistent with the objective of simplification in this small rate case, BNSF filed its Motion to Use 2011 Data, asking the Board to allow the parties to use current BNSF traffic data, in addition to historic Waybill Sample data, for purposes of selecting a comparison group in this case. On February 8, 2012, the Board issued a preliminary decision denying BNSF's Motion, although the Board did not provide the rationale for its decision. (hereafter "February 8 Decision). The Board stated that "[a] discussion of the merits of BNSF's motion will be included in a subsequent decision on the merits." February 8 Decision, at 2. It is unclear whether the Board understood BNSF to be seeking broader relief than BNSF was actually seeking. The Board described BNSF's Motion as "seek[ing] permission to add *only* BNSF's 2011 traffic tape data (through the third quarter) to the available data for the parties to introduce comparison group evidence regarding toxic-by-inhalation movements." February 8 Decision, at 1 (emphasis added). The Board's reference to BNSF's request "to add *only* 2011 traffic data" suggests that the Board may have thought that BNSF was seeking to limit the data used to present a comparison group to BNSF's 2011 traffic data. But BNSF never sought to limit the data that could be used to present comparison group evidence. BNSF's objective was to expand, not restrict, the data eligible to be used in selecting a comparison group to include 2011 BNSF traffic data as well as the Waybill Sample data that the Board made available to the parties.<sup>8</sup>

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<sup>8</sup> Uncertainty as to the implications of the Board's February 8 Decision for the selection of a comparison group is compounded by the Board's reference to the "available data for the parties to introduce comparison group evidence" given the parties' disagreement over the question whether one year or four years of Waybill Sample data may be used in selecting a comparison group. See Canexus' Reply in Opposition to BNSF's Motion to Permit Consideration of 2011 TIH Movements From BNSF Data in Selecting Comparison Group, at 7 (filed Jan. 3, 2012).

BNSF's proposal in its Motion was that each party would be free to make comparison group selections from the movements in the 2011 BNSF traffic data and/or the Waybill Sample data that the party believes are comparable to the issue traffic.

Under this approach, BNSF intended to submit a comparison group based on 2011 traffic data while giving Canexus the option to submit a comparison group based on the Waybill Sample data if Canexus believed that such a comparison group was appropriate. It was on this basis that BNSF has spent the past several weeks preparing its opening evidence. Moreover, in its production of discovery materials, BNSF provided Canexus with BNSF's traffic data for the year 2011 (through the third quarter), so Canexus has had several weeks to analyze the data and to consider its potential use for purposes of its opening evidence. Canexus never asked BNSF to provide additional years' traffic data.

Since the Board has not addressed the merits of BNSF's Motion, which it stated that it intends to do at a later date, it is unclear to BNSF whether the Board's February 8 Decision was intended to preclude the approach to the presentation of comparison group evidence that BNSF intended to pursue on opening. If the Board's subsequent decision on the merits of BNSF's Motion makes it clear that the Board decided only that it would be wrong to limit the parties to a single year's traffic data, then BNSF's presentation of a comparison group based on 2011 traffic data would still be appropriate, so long as Canexus has the opportunity to present a comparison group based on other years' Waybill Sample data. If, on the other hand, the Board's merits decision makes it clear that the Board intended to preclude any use of the 2011 traffic data for purposes of selecting a comparison group, which BNSF believes would be wrong, then BNSF would be limited to presenting an alternative traffic group based solely on the Waybill Sample data.

Given the lack of explanation in the Board's February 8, 2012 decision and the requirement that the parties file opening evidence on February 13, BNSF is proceeding under two alternative scenarios: a "preferred" comparison group selection based on current 2011 data, and an "alternative" comparison group selection based on 2009 Waybill Sample Data. Under the Three Benchmark procedures, a party may only select traffic for its final comparison group proffer from traffic submitted on opening. *Simplified Procedures*, at 18. By filing alternative cases while waiting for the Board to issue its decision on the merits of BNSF's Motion, BNSF preserves its ability to pursue a comparison group based on 2011 traffic data. Moreover, by presenting an alternative case at this time, BNSF seeks to avoid any delay in this proceeding in the event that the Board's ruling on the merits of BNSF's motion indicates that the Board does not intend to allow the parties to select comparable movements from BNSF's 2011 traffic data under any circumstances. In such event, BNSF will already have presented an alternative comparison group drawn from the Waybill Sample.<sup>9</sup>

Regardless of which data set is used for comparison group purposes, the objective of the Three-Benchmark analysis in this case is to assess the contribution to joint and common costs currently being made by the issue traffic rates with reference to the contribution being made by comparable current movements. As the Board recently explained, under the Three-Benchmark methodology, "a rate is set based on rates that are *currently* charged to other similar traffic."<sup>10</sup> While the objective of comparing the issue traffic rates with current rates on other similar traffic

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<sup>9</sup> Canexus will not be prejudiced by BNSF's decision to file alternative cases since Canexus received the 2011 traffic data in discovery. If Canexus is concerned about having to address alternative cases, BNSF would not be opposed to a stay of the proceeding until the Board issues its decision on the merits of BNSF's Motion.

<sup>10</sup> *AEPCO*, at 33 (emphasis in original).

is most readily accomplished by using current traffic data as BNSF has proposed, it can also be accomplished by adjusting historic Waybill Data R/VCs to reflect current R/VCs on similar traffic. This “other relevant factor” adjustment is explicitly permitted under *Simplified Standards*, and indeed it is compelled here because reliance on historic data in this case without an adjustment would result in the sort of arbitrary ratemaking that the Board knew it must avoid when it adopted *Simplified Standards*.

#### **B. Summary of BNSF’s Assumptions and Results on Opening**

We turn now to a brief summary of BNSF’s results under its preferred and alternative cases. The Board’s Three-Benchmark test involves a series of calculations based on the three benchmarks –  $R/VC_{COMP}$ , RSAM and  $R/VC_{>180}$  – as well as an assessment of other relevant factors that should be considered in determining the maximum reasonable rates for the issue traffic. BNSF summarizes the assumptions it used in making those calculations below. In both cases BNSF demonstrates that the issue traffic rates do not exceed reasonable maximum rates.

##### **1. BNSF’s Preferred Case**

**Data Source for Comparable Movements:** BNSF used its costed traffic data for all TIH movements moving after BNSF’s March 16, 2011 price changes through the third quarter of 2011.<sup>11</sup>

**Criteria for Selecting Comparable Movements:** BNSF selected chlorine movements with  $R/VCS > 180\%$ , local and interline, moving in privately-owned tank cars with a capacity of less than 22,000 gallons for distances of within 500 miles of the distance of each issue traffic movement. BNSF identified 210 movements that met these comparability criteria for the

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<sup>11</sup> This costed traffic data was produced to Canexus in discovery. See “BNSF 2011 TIH Traffic.csv” produced at CD-001.

Glendale movement, and 204 movements that met these comparability criteria for the Albuquerque movement.

**R/VC Ratios for Comparable Movements:** The comparable movements in BNSF's preferred comparison groups yielded an average R/VC ratio of 319% for the Glendale, AZ movement and 324% for the Albuquerque, NM movement. For both movements, the R/VC of the comparison group is higher than the corresponding issue traffic R/VCs, *i.e.* 291% for the Glendale movement and 306% for the Albuquerque movement.

**Application of RSAM/RVC<sub>>180</sub> Revenue Need Adjustment Factor:** BNSF does not adjust the R/VC ratios on the comparable movements to reflect the RSAM/RVC<sub>>180</sub> revenue need adjustment factor. While the 2010 and 2011 RSAM and RVC<sub>>180</sub> benchmarks used to calculate the adjustment factor are not currently available, BNSF explains below that there is no plausible scenario under which the adjustment factor would produce a reduction of the average R/VC ratio for the comparison group. The challenged rates are reasonable without applying the ratio; therefore consideration of these benchmarks is unnecessary.

**Application of Confidence Interval Adjustment:** Since BNSF is using its full 2011 traffic data of TIH movements as the basis for selecting comparable movements rather than a sample of traffic data, it is also unnecessary to apply a confidence interval adjustment, which in any event would only increase the average R/VC on the comparable group.

**Other Relevant Factors:** BNSF does not apply any other relevant factor adjustments, as the challenged rates do not exceed the average R/VC for the comparable movements. However, if the Board were for some reason to find the issue traffic rates to be unreasonably high under BNSF's preferred approach, the Board should apply an other relevant factor adjustment for future Positive Train Control ("PTC") costs, as described below in Section V.B.4.

## 2. BNSF's Alternative Case

**Data Source for Comparable Movements:** BNSF used costed Waybill Sample data for 2009 to select its comparison group for its alternative case. BNSF excluded Waybill Sample movements for 2006 through 2008 because the Board's decision in *Simplified Standards* to permit the use of four years of Waybill Sample Data rather than the most recent year of Waybill Sample Data was struck down by the D.C. Circuit in *CSX Transp., Inc. v. STB*, 584 F.3d 1076, 1083 (D.C. Cir. 2009) and no alternative rule has yet been issued. In any event, use of the most recent Waybill Sample Data is appropriate because the regulatory lag and consequent likelihood for distortion in the prior years' data is even greater than for 2009.

**Criteria for Selecting Comparable Movements:** BNSF selected chlorine movements with R/VCs greater than 180%, local and interline, moving in privately-owned tank cars with a capacity of less than 22,000 gallons for distances of greater than 500 miles. BNSF identified 26 movements that met these comparability criteria.

**R/VC Ratios for Comparable Movements:** The movements in BNSF's comparison group yielded an average R/VC ratio of 224% for both the Glendale, AZ movement and the Albuquerque, NM movement.

**Application of RSAM/RVC<sub>>180</sub> Revenue Need Adjustment Factor:** Using the RSAM and R/VC<sub>>180</sub> benchmarks for 2006-2009, BNSF determined that the revenue need adjustment factor is 1.06.

**Application of Confidence Interval Adjustment:** After applying the revenue need adjustment factor to the average R/VCs of the comparison group, BNSF adjusted the resulting R/VC ratios to set the maximum reasonable rate at the upper limit of the confidence interval.

The result is a maximum reasonable R/VC ratio of 247% for both the Glendale and Albuquerque movements.

**Other Relevant Factors:** Since the comparison group in BNSF's alternative case consists of traffic that moved before BNSF's March 2011 change to TIH pricing, BNSF applies a current rate adjustment so that the maximum R/VCs will reflect rates that are currently charged to comparable traffic. In calculating the current rate adjustment factor, BNSF eliminated the 1.06 upward adjustment produced by application of the 2006-2009 revenue need adjustment factor since the historical revenue need adjustment may not be applicable to current rates. BNSF also eliminated the effect of increasing the rate to reflect the upper bound of the confidence interval. Application of the current rate adjustment factor increases the maximum R/VC ratio for both the Glendale, AZ movement and the Albuquerque, NM movement to 318%. The R/VCs for the issue traffic – 291% for the Glendale movement and 306% for the Albuquerque movement – are below the maximum reasonable rate of 318%.

Alternatively, if the Board disallows BNSF's current rate adjustment, it should adopt both BNSF's proposed historical PTC and liability risk adjustments. BNSF's historical PTC adjustment is designed to allow BNSF to recover from TIH traffic, including the issue traffic, the actual PTC expenditures that BNSF made in 2010 and 2011. BNSF's liability risk adjustment is designed to allow BNSF to recover from TIH traffic, including the issue traffic, the incremental insurance premiums that are attributable solely to TIH traffic. The combined effect of these two other relevant factor adjustments is to increase the maximum R/VC ratio on the Glendale, AZ movement to 331% and to increase the maximum R/VC ratio on the Albuquerque, NM

movement to 358% for 2011.<sup>12</sup> The issue traffic R/VCs are significantly below these R/VC levels.

Finally, BNSF sponsors a future PTC cost adjustment that would apply to any rate prescription going forward. BNSF expects to make substantial PTC expenditures over the next several years that will not be reflected adequately in BNSF's URCS costs. BNSF's future PTC adjustment mechanism would allow BNSF to adjust future prescribed rates each year to account for actual PTC expenditures made in the immediately preceding year.

### **C. Witnesses and Exhibits Supporting Opening Evidence**

The calculations underlying BNSF's Opening Evidence are sponsored by Benton V. Fisher of FTI consulting. Mr. Fisher's witness qualifications and verification are included in Appendix A. Mr. Fisher is responsible for the various calculations implementing all aspects of the Board's Three-Benchmark methodology addressed in BNSF's Opening Evidence. Mr. Fisher also sponsors the other relevant factor calculations proposed by BNSF. Mr. Fisher sponsors the following Exhibits attached to this counsel narrative:

Exhibit 3: Route map for the Glendale movement.

Exhibit 4: Route map for the Albuquerque movement.

Exhibit 6: List of movements for BNSF's preferred comparison group - Glendale.

Exhibit 7: List of movements for BNSF's preferred comparison group - Albuquerque.

Exhibit 8: List of movements for BNSF's alternative comparison group.

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<sup>12</sup> These R/VC ratios include only the historic PTC expenditures through year-end 2010. BNSF shows below that the maximum R/VC ratios for 2012 are 15% to 20% higher when accounting for the actual PTC expenditures made in 2011. See BNSF workpaper "PTC 330 and 335\_BNSF Opening.xlsx."

The factual assertions in BNSF's Opening Evidence regarding the pricing of BNSF's TIH traffic and the market factors related to TIH are based upon a verified statement submitted by David Garin, Group Vice President IP Marketing for BNSF in support of BNSF's Motion to Use 2011 Data. It is attached as Exhibit 1.

## **II. BACKGROUND**

In this proceeding, Canexus has challenged the reasonableness of BNSF's common carrier rates effective March 16, 2011 for two of the longest movements of chlorine that BNSF handles for any shipper. The movements originate at Canexus' facility in North Vancouver, British Columbia, Canada, and move to Glendale, Arizona, and to Albuquerque, New Mexico. The reasonableness of the rates that BNSF charges for these chlorine movements under the Board's Three-Benchmark test must be considered in light of several important background facts. These background facts are relevant to the choice of an appropriate comparison group and to the application of other relevant factors under the Three-Benchmark methodology.

### **A. Chlorine is a Very Dangerous Commodity to Transport**

Chlorine is a very dangerous commodity that is toxic when inhaled and, consequently, is classified as a "Toxic-By-Inhalation" or TIH commodity.<sup>13</sup> BNSF handles a range of hazardous materials, but it is well-recognized that "TIH chemicals are among the most dangerous hazardous materials because they are very toxic and can spread easily in the air if released."<sup>14</sup>

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<sup>13</sup> See 49 C.F.R. §§ 171.8, 173.115(c), 173.116(a); see also 49 C.F.R. § 172.101 (hazardous material table).

<sup>14</sup> See Branscomb, et al., Harvard Kennedy School, Belfer Center for Science and Int'l Affairs, *Rail Transportation of Toxic Inhalation Materials: Policy Responses to the Safety and Security Externality*, at 4 (Feb. 2010) (hereafter "Harvard Report").

Chlorine is the most toxic and hence the most dangerous of all the TIH commodities that are transported by rail:

When chlorine is released into the air, it becomes very dangerous. Small doses irritate the eyes, skin, and respiratory tract; large concentrations of chlorine gas can kill people within minutes. If inhaled at very high concentrations, chlorine breaks down in the lungs to form hydrochloric acid that burns lung tissue, causing pulmonary edema and essentially causing drowning as liquid floods the lungs.

*Id.* at 9. A United States Department of Energy study that quantified the risk of transporting hazardous materials showed that chlorine is the most dangerous TIH commodity due to its toxicity and dispersion properties.<sup>15</sup> Moreover, chlorine's chemical properties make even a small release of the chemical more dangerous than releases of other TIH materials. Liquid chlorine quickly turns into gas if it is released, and, because it is heavier than air, the chlorine gas stays close to the ground, spreads rapidly, and disperses slowly.<sup>16</sup>

The safety record for transporting chlorine by rail has been very strong. However, there have been a few accidents involving TIH commodities, including chlorine, that have heightened awareness of the extreme risks associated with transportation of TIH materials. In June 2004, an accident in Maconda, Texas, resulted in the release of chlorine gas and three deaths. In January

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<sup>15</sup> David F. Brown et al., U.S. Dep't of Energy, *A National Risk Assessment for Selected Hazardous Material in Transportation*, at 179-80 (2000). Indeed, due to chlorine's dangerous nature, it was employed as a chemical weapon as far back as World War I. See Occupational Safety & Health Admin., *Occupational Safety and Health Guideline for Chlorine*, available at <http://www.osha.gov/SLTC/healthguidelines/chlorine/recognition.html> ("Severe acute effects of chlorine exposure in humans have been well documented since World War I when chlorine gas was used as a chemical warfare agent"); see also Nuclear Threat Initiative, *Industrial Chemicals as Weapons: Chlorine* (July 31, 2007), available at <http://www.nti.org/analysis/articles/industrial-chemicals-weapons-chlorine/>.

<sup>16</sup> See Homeland Security Council & Dep't of Homeland Security, *National Planning Scenario 8: Chemical Attack—Chlorine Tank Explosion* (2005), available at [http://cryptome.org/15-attacks.htm#Scenario 8](http://cryptome.org/15-attacks.htm#Scenario%208); see also Dep't of Health & Human Servs., Ctrs. For Disease Control & Prevention, *Chemical Emergencies - Facts About Chlorine* (Mar. 18, 2003), available at <http://www.bt.cdc.gov/agent/chlorine/basics/facts.asp>.

2005, an accident in Graniteville, South Carolina, resulted in the release of chlorine gas with nine deaths and hundreds of injuries.<sup>17</sup> While these incidents occurred outside of urban areas, they made it clear that the transportation of chlorine presents enormous risks to the public and to the railroads handling the traffic.

**B. In Recent Years, the Regulatory Environment Surrounding Rail Transportation of TIH Commodities Has Changed Significantly**

As awareness of these risks has increased, the regulatory environment for handling and transportation of TIH commodities has also changed. The year 2008 marked the beginning of a sea change in the regulatory environment surrounding the rail transportation of TIH materials. In October 2008, Congress passed the Rail Safety Improvement Act of 2008 (“RSIA”), Pub. L. 110-432 (promulgating 49 U.S.C. § 20157), requiring that all Class I railroads and all intercity passenger and commuter railroads implement a Positive Train Control (“PTC”) system by December 31, 2015, on main line track carrying either passengers or at least a specified minimum amount of TIH materials.<sup>18</sup> The PTC system is to be designed to increase railroad safety by overriding the engineer’s control of the train in certain situations, automatically stopping the train. Since the legislation was enacted, the Federal Railroad Administration (“FRA”) has initiated rulemaking proceedings to develop rules governing the implementation of the PTC system required by Congress. The FRA has estimated that it will cost up to \$13.2 billion to install and maintain PTC over the next 20 years.<sup>19</sup> Through December 2011, BNSF has made more than {{ }} million in capital investments to install PTC and BNSF currently

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<sup>17</sup> See Harvard Report, at 17-21.

<sup>18</sup> See also 49 C.F.R. § 236.1005 (75 Fed. Reg. 2,700).

<sup>19</sup> Federal Railroad Administration, Dep’t of Transportation, 49 C.F.R. Parts 229, 234, 235, and 236, *Positive Train Control Systems; Final Rule; Request for Comment on Specific Issues*, 75 Fed. Reg. 2,598, at 2,684 (Jan. 15, 2010).

anticipates investing at least an additional { { } } in capital to implement PTC on its system, including about \$300 million in 2012.<sup>20</sup>

Starting in 2008, various regulatory agencies also adopted new regulations relating to safety and security in the transportation of hazardous materials. For example, in late November 2008, the Pipeline and Hazardous Materials Safety Administration (“PHMSA”) promulgated routing rules for Rail Sensitive Security Materials (“RSSM”) in 49 C.F.R. § 172.820, which, among other things, require railroads to evaluate the routing of TIH and other hazardous materials based upon 27 specified factors and to select routes that pose the least risk.<sup>21</sup> In late November 2008, the Transportation Security Administration (“TSA”) also issued new rules requiring a positive chain of custody and control for all RSSM.<sup>22</sup> For example, the new regulations require that TIH commodities, including chlorine, be interchanged only at attended interchange locations where crews from both interline railroads are present and that railroads commit more personnel to monitoring tank car security.<sup>23</sup> In addition, the new regulations require that in high-threat urban areas (“HTUAs”) designated by the TSA, delivered cars must be

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<sup>20</sup> See BNSF-GLEN-ALBQ00005001; BNSF News Release, *BNSF Announces \$3.9 Billion Capital Commitment Program*, Feb. 1, 2012, available at <http://www.bnsf.com/media/news-releases/2012/february/2012-02-01a.html>.

<sup>21</sup> 49 C.F.R. § 172.820 (73 Fed. Reg. 20,771 (Apr. 16, 2008) (interim final rule), as amended 73 Fed. Reg. 72,182 (Nov. 26, 2008)).

<sup>22</sup> See Dep’t of Homeland Security, Transportation Security Administration, 49 C.F.R. §§ 1520 and 1580, *Rail Transportation Security; Final Rule*, November 26, 2008; 73 Fed. Reg. 72,173 (Nov. 26, 2008), amended 74 Fed. Reg. 23,657 (May 20, 2009).

<sup>23</sup> 49 C.F.R. § 1580.107.

kept within secure areas.<sup>24</sup> Further, in January 2009 the FRA adopted rules that require, among other things, a 50 mph speed limit for loaded TIH cars.<sup>25</sup>

These widespread changes in the regulatory environment regarding transportation of TIH materials have had a major impact on the market for transportation of TIH products. Rail operations relating to TIH movements have become much more complex and costly with the new regulatory requirements. Routing flexibility that BNSF has in transporting non-TIH products is being restricted by the new regulatory requirements. The costs and complexity of building trains and handling yard operations for TIH carloads has been increasing as a result of these new requirements. It is not surprising that these increased costs and operational complexities have resulted in significant price increases for the transportation of hazardous materials, and in particular TIH materials.

**C. Effective March 16, 2011, BNSF Substantially Increased Its Rates for Transporting Chlorine and Other TIH Commodities to Better Reflect the Market for Such Transportation**

BNSF completely overhauled its pricing of all TIH traffic, including chlorine movements, marketed by its IP Marketing group effective March 16, 2011. In the months leading up to BNSF's March 2011 TIH transportation price increases, BNSF concluded that its pricing of TIH traffic had not properly reflected the fundamental changes that were taking place in the market, particularly with respect to the pricing of long-haul TIH movements that pose greater liability risks than short movements and that have been especially affected by the recent regulatory changes. Exhibit 1 at 2-3. Shippers, and in some instances connecting carriers, were taking advantage of BNSF's out-of-date pricing structure to move TIH in ways that made no

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<sup>24</sup> *Id.*

<sup>25</sup> 49 C.F.R. § 176.86 (74 Fed. Reg. 1,801, Jan. 13, 2009).

sense, often using circuitous and lengthy routes to take advantage of BNSF's group-to-group pricing structure and obtain relatively low rates on the long-haul movements. *Id.*

BNSF's March 2011 overhaul of its TIH pricing involved a number of changes in the structure and levels of BNSF's TIH prices. First, it involved movement from group-to-group pricing to point-to-point pricing. As Mr. Garin explains, BNSF's prior group-to-group pricing structure facilitated inappropriate routings of TIH traffic. Movement to a point-to-point pricing structure gave BNSF better control over how TIH commodities would move. *Id.* at 3.

BNSF's price changes also involved a substantial increase in the level of the rates on long-haul movements that was more reflective of the disproportionate risks and burdens associated with those movements. The higher rates were intended to reflect the increasing operational complexity and associated costs resulting from some of the recently adopted regulations that require special handling of TIH movements, including the rule providing that TIH commodities could only be interchanged at attended locations, the regulation that set a 50 mph speed limit for loaded TIH cars, and the routing protocols overseen by FRA and the PHMSA. *Id.* at 3-4.

BNSF's March 16, 2011 TIH rate increase also was driven in part by BNSF's attempt to better reflect the impact of liability risk associated with TIH traffic in its rates. *Id.* at 4. Insurance to protect against hazmat-related liability is extremely expensive and difficult to obtain as insurance companies may be unwilling to fully insure the risk, which can amount to several billion dollars for a single incident.<sup>26</sup> Although TIH shipments make up only a small fraction of

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<sup>26</sup> See Testimony of James R. Beardsley, Managing Director, National Rail Transportation Practice Aon Risk Services, Inc., *Current Issues in Rail Transportation of Hazardous Materials*, Hearing Before the House Subcomm. on Transportation and Infrastructure (June 13, 2006) ("In conclusion, as the professionals charged with the task of securing financially secure

railroads' overall business, such shipments have been estimated to contribute about 50 percent of the rapidly-rising cost of railroad insurance.<sup>27</sup> Indeed, as early as mid-2008, BNSF estimated that the premiums it paid for liability insurance for losses exceeding {{                    }}, which represented more than {{                    }} of its insurance premiums, were directly attributable to the transportation of TIH/PIH commodities.<sup>28</sup>

While the price increases were substantial, BNSF's prices were consistent with the overall market for TIH transportation. As shown below in the discussion of BNSF's comparable traffic from the post-March 2011 chlorine movements, the average R/VCs on chlorine movements after the price change are well below the maximum reasonable rates that the Board calculated for two of UP's long-haul chlorine movements in 2010 (346% and 356%), and are in line with maximum reasonable rates that the Board calculated for CSX chlorine movements in 2008 (287% and 321%), which was before major changes in the market led to further rate increases.

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capacity for our railroad clients to cover catastrophic accidents or events, we must report that we are concerned. We are concerned about the continued viability of the railroad liability market in the face of another hazmat claim. We are concerned more from the standpoint of adequate availability than merely cost.”); Sally Roberts, BUSINESS INSURANCE, *Toxic Spills Seen as Major Risk for Railroads; Chemical Cargo a Small Fraction of Rail Freight, But Constitute Bulk of Liability Exposure* (Feb. 18, 2008) (quoting insurance company officials); Assoc. of American Railroads, *Hazmat Transportation by Rail: An Unfair Liability* (March 2011), available at <http://www.aar.org/~/media/aar/Background-Papers/Haznat-by-Rail.ashx>; see also Comments of BNSF, *Ex Parte No. 677 (Sub-No.1) Common Carrier Obligation of Railroads-Transportation of Hazardous Materials*, (July 22, 2008), available at <http://www.bnsf.com/media/speeches/pdf/EP677JulyHrgPrestnDr7-21-08.pdf> (“Insurance is not commercially available to sufficiently protect us against catastrophic loss”; “There are limits on the availability of insurance, at ever-increasing cost”).

<sup>27</sup> See Statement of the Assoc. of Amer. Railroads, *Chemical Security: The Implementation of the Chemical Facility Anti-Terrorism Standard and the Road Ahead*, Hearing Before the House Subcomm. on Transportation Security and Infrastructure Protection (Dec. 12, 2007).

<sup>28</sup> See BNSF-GLEN-ALBQ00001104 through BNSF-GLEN-ALBQ00001107.

**D. The Challenged Rates Reflect BNSF's March 16, 2011 Fundamental Change in Pricing Transportation of TIH Commodities**

The challenged rates on the Glendale and Albuquerque movements reflect the fundamental pricing change that BNSF made to all TIH movements, including chlorine movements, marketed by the IP group as of March 16, 2011. The challenged rates are just two of the dozens of rates that became effective March 16, 2011, as established in BNSF Price Authority 90096, Implementing Agreement 5000, Amendment 20. *See Exhibit 2.* Canexus has acknowledged that the fundamental change in BNSF's pricing that occurred in March 2011 broadly affected TIH movements. As Canexus states in its complaint, "[e]ffective March 16, 2011, BNSF substantially increased its common carrier tariff rates for shipments of chlorine to Glendale, Albuquerque *and other destinations . . .*" Complaint, at ¶ 8 (emphasis added).

**E. Transportation Characteristics of the Issue Traffic Movements**

Both issue traffic movements originate at Canexus' facility in North Vancouver, British Columbia, Canada. Canadian National ("CN") serves the origin and provides switching service from Canexus' facility, delivering tank cars containing Canexus' chlorine to BNSF at a location near Vancouver. Complaint, at ¶ 4.

The Glendale movement then travels on BNSF from North Vancouver { {

}} Exhibit 3 shows the route of the Glendale movement. As shown in Table 1 below, the actual routings for the Glendale movement during the first three quarters of 2011 averaged { } total miles, of which { } miles are on the ARZC.<sup>30</sup>

The Albuquerque movement travels on BNSF from North Vancouver {{

}} Exhibit 4 shows the route of the Albuquerque movement. As shown in Table 1, below, the actual routings for the Albuquerque movement during the first three quarters of 2011 averaged { } total miles.<sup>31</sup>

The URCS Phase III movement characteristics of each issue traffic movement are shown in Table 1 below.

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<sup>30</sup> BNSF workpaper "Canexus Issue URCS Inputs.xlsx," based on discovery file "BNSF 2011 TIH Traffic.csv" produced at CD-001.

<sup>31</sup> *Id.*

**Table 1**  
**URCS PHASE III COST PROGRAM INPUTS<sup>32</sup>**

<u>Movement Parameters</u>	<u>N. Vancouver, BC to Glendale, AZ</u>	<u>N. Vancouver, BC to Albuquerque, NM</u>
1. Carrier	BNSF-ARZC-BNSF	BNSF
2. Loaded Miles	{ }	{ }
3. Shipment Type	Originate & Deliver (BNSF); Receive & Deliver (ARZC); Receive & Terminate (BNSF)	Originate & Terminate
4. Cars per Shipment	1	1
5. Car Type	Tank<22,000 Gal (URCS Code 15)	Tank<22,000 Gal (URCS Code 15)
6. Car Ownership	Private	Private
7. Net Tons per Car	{ }	{ }
8. Commodity (STCC)	Chlorine (2812815)	Chlorine (2812815)
9. Movement Type	Single Car	Single Car

The URCS variable cost and R/VC calculations for each issue traffic movement as of Fourth Quarter 2011 are shown in Table 2 below. The R/VCs set forth below for the issue traffic movements differ from those contained in BNSF's Initial Disclosures because these R/VCs are based on 2010 URCS, which was not available at the time BNSF submitted its Initial Disclosures, and are updated to Fourth Quarter 2011.

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<sup>32</sup> *Id.*

**Table 2**  
**URCS PHASE III VARIABLE COSTS PER CAR AND R/VC RATIOS<sup>33</sup>**

	<u>N. Vancouver, BC to Glendale, AZ</u>	<u>N. Vancouver, BC to Albuquerque, NM</u>
Phase III Cost Base Year 2010	\$4,863	\$5,498
2010 to 4Q11 Index	1.091 (BNSF); 1.089 (Western Region)	1.091
Phase III Cost 4Q11	\$5,303	\$5,996
Current Rate including Fuel Surcharge	\$15,445	\$18,351
Revenue to Variable Cost Ratio	291%	306%

### III. LEGAL STANDARDS FOR THREE-BENCHMARK CASES

In establishing its simplified standards in Ex Parte 646, the Board explained that it was “seek[ing] to make its rail rate dispute resolution procedures more affordable and accessible to shippers of small and medium-sized shipments, while simultaneously ensuring that the new guidelines would not result in arbitrary ratemaking.”<sup>34</sup> To avoid an arbitrary outcome, the unique aspects of this Three-Benchmark case – most notably BNSF’s fundamental change in its pricing of TIH traffic in March 2011 – require that the Board take steps to assure that the reasonableness of the current issue traffic rates is assessed with reference to the *current* rates and costs of comparable movements.

Under the simplified approach adopted in the Three-Benchmark methodology, the Board determines whether the level of contribution from the issue traffic to the defendant’s joint and common costs (as reflected in the R/VC ratio) is comparable to the contribution level of other

<sup>33</sup> BNSF workpaper “2011 Issue RVC.xlsx.”

<sup>34</sup> *Simplified Standards*, at 4.

movements with similar demand characteristics.<sup>35</sup> If the mark-up over variable costs of the issue traffic is comparable to the mark-up over variable costs of other comparable movements, the challenged rate is deemed to be reasonable. The fundamental objective in a Three-Benchmark case is to determine whether the issue traffic has been singled out to make greater contribution to joint and common costs than other comparable traffic.<sup>36</sup> As the Board explained, “[t]he whole purpose of the Three-Benchmark approach is to determine where the challenged rate falls in comparison to other similarly situated traffic.”<sup>37</sup>

#### **A. Data Sources for Comparable Movements**

Two legal issues regarding the appropriate data sources for selecting comparable traffic movements under the Three-Benchmark method are central to this case. The first is the issue of regulatory lag associated with the use of the Carload Waybill Sample data. The second is the still unresolved issue of how many years of Waybill Sample data should be used for purposes of identifying comparable movements.

##### **1. The Regulatory Lag Issue Dictates that 2011 Data Should be Used**

The regulatory lag issue arises because the Three-Benchmark test necessarily focuses on the *current* level of issue traffic rates and current issue traffic variable costs. As the Board recently explained, under the Three-Benchmark methodology, “a rate is set based on rates that are *currently* charged to other similar traffic.”<sup>38</sup> However, the Carload Waybill Sample, which the Board generally uses as the data source for movements comparable to the issue traffic movements, does not contain either revenue or variable cost data that is truly current. In this

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<sup>35</sup> See, e.g., *id.* at 73.

<sup>36</sup> *Id.* at 17.

<sup>37</sup> *Id.* at 80.

<sup>38</sup> *AEPCO*, at 33 (emphasis in original).

case, for example, the challenged rates were established in March 2011, but the most recent Carload Waybill Sample data reflects rates and variable costs of traffic that moved in 2009. Thus there is an inherent tension built into the Three-Benchmark methodology as designed by the Board – the tension between the need to use current data to identify the level of contribution of truly comparable movements and the Board’s reliance on historic data that results from use of the Carload Waybill Sample.

The vintage of the rates to which the issue traffic is compared can be critical to the accuracy of a test to determine whether the issue traffic is being singled out for unfair treatment. If a fundamental change has occurred over time in the pricing of particular movements, the comparison of current issue traffic R/VC ratios to older R/VC ratios may produce the false appearance that the issue traffic has been singled out to make greater contribution to joint and common costs than other “similarly situated” traffic. The United States Court of Appeals for the District of Columbia Circuit acknowledged that the use of “older data increases the ‘likelihood of distorted comparisons and results.’”<sup>39</sup>

The Board itself has recognized that the regulatory lag issue could become a problem in a particular case.<sup>40</sup> However, the Board has concluded that in most cases, the regulatory lag will not produce unacceptably arbitrary results, because “the effects of price shifts associated with an inflationary increase in costs should be largely offset, leaving the R/VC ratios unaffected.”<sup>41</sup> But

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<sup>39</sup> *CSX Transp., Inc. v. STB*, 584 F.3d 1076, 1083 (D.C. Cir. 2009) (quoting petitioners). In that decision, which remanded *Simplified Standards* to the Board, the court vacated its prior ruling that the Board had adequately dealt with the regulatory lag issue in the original rulemaking decision. Therefore, whether the Board has adequately addressed the regulatory lag problem remains an open issue.

<sup>40</sup> *Simplified Standards*, at 85.

<sup>41</sup> *Id.*

when, as in this case, price changes are not only associated with inflationary increases in costs, a comparison of current rates with older rates is likely to produce arbitrary and meaningless results. Under those circumstances, a comparison of R/VC ratios on current issue traffic movements to R/VC ratios on older movements in the Waybill Sample could lead the Board to conclude that issue traffic rates are out-of-line with rates on comparable movements. But this would be a false and arbitrary conclusion because the Board was not in fact looking at comparable movements as the basis for its comparison.

The Board has indicated in the past that the way it prefers to address the potential distorting effects of regulatory lag is indirectly through the use of "other relevant factor" evidence, rather than directly by finding a source of truly comparable movements. In this case, the Board should not rely on the possible application of other relevant factors to address the potential distortions from regulatory lag for two reasons. First, the change in BNSF's TIH pricing structure in March 2011 that resulted in the challenged issue traffic rates was a fundamental, widespread change based on factors other than cost inflation, which means that the current BNSF TIH rate structure is fundamentally dissimilar to the TIH rate structure in place prior to March 2011, including in 2009 and prior years.<sup>42</sup> The Board's assumption that numerators and denominators of R/VC ratios will move more or less in parallel as rates and costs both increase by similar percentages simply does not apply here. See Table 8 below. The data relating to 2009 and prior year movements tell the Board nothing about whether the rates on

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<sup>42</sup> Canexus itself has attested to the widespread and fundamental nature of recent price changes on chlorine movements. In its comments in Finance Docket No. 35504, Canexus talks about rate increases on chlorine movements "which have in many cases been more than 100 percent over a one-year period and it is not uncommon for chlorine rates to be more than 3 or 4 times higher than they were just 5 years ago." Opening Comments of Canexus Chemicals Canada, L.P., *Union Pac. R.R. Co.—Petition for Declaratory Order*, STB Finance Docket No. 35504, at 4 (filed Jan. 25, 2012).

issue traffic movements challenged by Canexus are *currently* contributing more to unattributable costs than rates on comparable movements.

Second, as explained in BNSF's Motion to Use 2011 Data, the Board has recognized that there might be situations where the Waybill Sample would not provide data for a sufficient quantity of comparable movements to allow for a meaningful comparison of R/VC ratios on the current issue traffic movements with comparable Waybill Sample movements. As the STB explained in *Simplified Standards*, "[t]his Three-Benchmark approach rests on the selection of a useable comparison group. If a particular movement is so unique that there are insufficient comparable movements in the Waybill Sample, we will entertain a reasonably tailored request for comparable movements from the defendant's own traffic tapes." *Id.* at 83.

In this case, the 2006-2009 Waybill Sample records made available to the parties do not include a sufficient number of movements that are comparable to the 2011 chlorine issue traffic movements to be used as the basis for a Three-Benchmark test.<sup>43</sup> This is precisely the type of situation in which the STB believes that it would be appropriate to permit the parties to use the rail carrier's "own traffic tapes" in selecting a comparison group. BNSF has produced in this case its traffic data on TIH movements for the first three quarters of 2011.<sup>44</sup>

**2. If Waybill Sample Data Are Used, Only One Year (2009) Should Be Used, Not Four Years (2006-2009)**

As explained in the introduction, BNSF is presenting in its Opening Evidence both a "preferred" comparison group drawn from 2011 BNSF traffic records and an "alternative"

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<sup>43</sup> *Motion to Use 2011 Data* at 12-13 and accompanying verified statement of Benton Fisher (hereafter "Fisher VS"). The Fisher VS is attached as Exhibit 5.

<sup>44</sup> While the Board denied BNSF's Motion to Use 2011 Data on February 8, 2012, the Board has not explained why, nor is it clear that the Board understood that BNSF sought permission for a party to choose to use 2011 data rather than an order compelling use of that data.

comparison group drawn from the Waybill Sample data produced to the parties by the Board for purposes of this case. The use of Waybill Sample data in the alternative case raises the question of how many years of Waybill Sample data may properly be considered in selecting comparable movements for purposes of the Three-Benchmark maximum rate test.

As a formal legal matter, this issue has not been resolved. The Board's original proposal in its Notice of Proposed Rulemaking in Ex Parte 646 was to use only the single, most recent year of Waybill Sample data for comparison group purposes,<sup>45</sup> which in this case would be 2009 data. The Board's subsequently adopted Three-Benchmark rule expanded the Waybill Sample to cover four years of data for comparison group purposes, but the four-year provision was rejected by the D.C. Circuit because the parties to the rulemaking had not had an adequate opportunity to comment on the expanded period.<sup>46</sup> On remand from the D.C. Circuit, the Board has proposed to allow parties to use four years of Waybill Sample data to select a comparison group. *Waybill Data Released in Three-Benchmark Rail Rate Proceedings, Ex Parte No. 646 (Sub-No. 3)* (served April 2, 2010). However, there has been no decision on the four year proposal. Thus, in BNSF's view, currently only one year, *i.e.* the most recent year, of Waybill Sample data should be considered in selecting the comparison group. This is the approach BNSF has taken with its alternative comparison group, limiting comparable movements to those identified from the 2009 Waybill Sample.

Apart from the formal legal considerations affecting how many years of Waybill Sample data may be used, limiting Waybill Sample data to 2009 data would mitigate the regulatory lag

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<sup>45</sup> *Simplified Standards for Rail Rate Cases*, STB Ex Parte No. 646 (Sub-No. 1) (served July 28, 2006) at 33 (hereafter "*NPRM*").

<sup>46</sup> *CSX Transp. v. STB*, 584 F.3d 1076, 1083 (D.C. Cir. 2009) (vacating the "portion of the [STB's] final rule that makes four years of data available for comparison groups").

problem described above. As already explained, the current issue traffic rates are not comparable to any pre-March 2011 BNSF rates for TIH shipments. But 2006-2008 rates and variable costs on BNSF TIH movements are even more disconnected from current rates and variable costs than those in effect in 2009. As BNSF explained in its Motion to Use 2011 Data, events that occurred in 2008 marked a watershed in the regulation of TIH rail traffic.<sup>47</sup> The adoption of new rules regarding TIH routing and handling by PHMSA, TSA, and FRA, and the passage of federal legislation requiring the installation of PTC on rail routes used to handle TIH traffic created a whole new environment for the transportation of TIH commodities. BNSF's pricing and costs in 2008 and prior years could not have reflected the new regulatory environment that came into being in 2008 and the Waybill Sample data prior to 2009 could not reasonably be deemed a source of "comparable" movements for Three-Benchmark purposes. Accordingly, to the extent the Board considers any Waybill Sample data in this case, it should limit its consideration to 2009 data.

#### **B. Comparability Criteria**

The broad contours of the Board's criteria for selecting comparison group movements to be used in the Three-Benchmark test are set out in its September 2007 *Simplified Standards* decision. The purpose of the comparison is "to determine the reasonable level of contribution to joint and common costs for a particular movement."<sup>48</sup> In keeping with that objective, the Board stated that "we will favor a comparison group that consists of movements of like commodities so the variable cost calculation of the issue movement and comparison group will be similar."<sup>49</sup>

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<sup>47</sup> *Motion to Use 2011 Data*, at 7-9.

<sup>48</sup> *Simplified Standards*, at 17.

<sup>49</sup> *Id.*

*Simplified Standards* identified a variety of factors that the Board would consider to determine comparability, “such as length of movement, commodity type, traffic densities of the likely routes involved, and demand elasticity. . . . The selection of the best comparison group will be governed by which group the Board concludes provides the best evidence as to the reasonable level of contribution to joint and common costs for the issue movement.”<sup>50</sup>

The Board’s application of comparability criteria in individual Three-Benchmark cases decided since the issuance of *Simplified Standards* has varied based on the comparison groups proposed by the litigants in those cases. Rather than focusing on individual comparability criteria in isolation, the Board has followed the course it announced in *Simplified Standards* of “select[ing] the comparison group that it concludes is most similar in the aggregate to the issue movements.”<sup>51</sup> The comparability criteria that BNSF has focused on in forming its comparison groups under its preferred and alternative cases are identified and discussed in Section IV below.

### **C. Other Relevant Factors**

As noted above, the Board has permitted the consideration of “other relevant factors” evidence to address problems associated with regulatory lag. In *Simplified Standards*, the Board stated that:

we recognize that relying on the Waybill Sample introduces some regulatory lag in the analysis. Accordingly, parties may present (as ‘other relevant factors’) evidence that the presumed maximum lawful rate should be higher, or lower, due to market changes not reflected in the comparison group or the average RSAM and R/VC<sub>>180</sub> benchmarks.<sup>52</sup>

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<sup>50</sup> *Id.* at 17-18.

<sup>51</sup> *Id.* at 18.

<sup>52</sup> *Id.* at 85.

The Board has accepted or rejected other relevant factor evidence in individual Three-Benchmark cases based on the quality of the evidence submitted in those proceedings. BNSF's proposed other relevant factor evidence supporting adjustments to the presumed maximum lawful rate under BNSF's alternative case is discussed in Section V below.

#### **IV. BNSF's APPLICATIONS OF THE THREE BENCHMARKS**

For the reasons discussed above, BNSF is presenting two alternative Three Benchmark cases: (1) a preferred case that is based on movements for the comparison group selected from BNSF's 2011 traffic data produced in this case; and (2) an alternative case based on movements for the comparison group from the Carload Waybill Sample data provided by the STB in this case. In both cases, BNSF's evidence shows that the challenged rates do not exceed reasonable maximum rates.

##### **A. BNSF's Preferred Case**

BNSF's preferred case is based upon a comparison group that consists of post-March 15, 2011 chlorine movements from 2011 BNSF traffic data produced in this case.

##### **1. Preferred Case Comparison Group Benchmark**

BNSF selected comparable movements for the comparison group benchmark based upon the criteria that are described below. Application of these criteria results in a comparison group of 210 movements for the Glendale Movement and 204 movements for the Albuquerque Movement. The movements in the two preferred comparison groups are listed in Exhibits 6 and 7.<sup>53</sup>

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<sup>53</sup> See also BNSF workpapers "Preferred Comparison Group Glendale.xlsx" and "Preferred Comparison Group Albuquerque.xlsx."

**a. Movements from Post-March, 15, 2011 Time Period**

The issue traffic rates challenged by Canexus in this proceeding were effective March 16, 2011. Complaint at 2. The Carload Waybill Sample movements provided by the STB in this proceeding are from the years 2006 through 2009. While the standard procedure in a Three-Benchmark case is for the parties to choose comparable traffic from the Waybill Sample data, the STB has recognized that where “there are insufficient comparable movements in the Waybill Sample, we will entertain a reasonably tailored request for comparable movements from the defendant’s own traffic tapes.” *Simplified Standards*, at 83.

BNSF showed in its Motion to Use 2011 Data that the Carload Waybill Sample data do not contain movements that are comparable to the issue traffic movements. As explained above, there is no dispute over the fact that BNSF’s prices for TIH transportation after March 15, 2011 are substantially different from and higher than BNSF’s pre-March 16, 2011 prices and that those price changes are not driven primarily by normal inflationary cost changes. The market for TIH transportation has changed dramatically since 2009 due to factors including the sea change in the regulatory framework for such transportation, and BNSF’s March 2011 price change reflected these changes in the market. Therefore, BNSF’s post-March 15, 2011 rates and R/VC ratios, including those associated with the issue traffic that resulted from the March 2011 price changes, are simply not comparable to BNSF’s pre-March 16, 2011 rates and R/VC ratios, such as those associated with TIH movements contained in the Carload Waybill Sample.

Accordingly, one of the comparison group selection criteria adopted by BNSF for its preferred case is that the eligible movements must have occurred subsequent to March 15, 2011 and must come from the BNSF 2011 traffic data produced in this case. Movements from that time period are the only movements comparable to the issue traffic movements.

**b. Movements with an R/VC Ratio Greater Than 180%**

In accordance with the STB's instructions in *Simplified Standards*, BNSF adopted a selection criterion that limited the comparison group to movements with R/VC ratios greater than 180 percent. *See Simplified Standards*, at 17.

**c. Movements of Chlorine**

BNSF limited the comparison group to chlorine movements. Both issue traffic movements involve transportation of chlorine. Commodity type is one of the comparability factors identified by the STB as relevant in selecting movements for a comparison group. *Simplified Standards*, at 17. As the STB explained, it will “favor a comparison group that consists of movements of like commodities so the variable cost calculation of the issue movement and the comparison group will be similar.” *Simplified Standards*, at 17. Indeed, in a previous Three-Benchmark case involving chlorine, the STB expressed its preference for including only movements of the same commodity type as the issue traffic movements in the comparison group.

Specifically, in assessing the reasonableness of Union Pacific Railroad's (“UP”) rates for two local single-line chlorine movements, the STB stated that “[a]ll else being equal, local single-line chlorine movements would be the preferable comparison group for the issue traffic movements.”<sup>54</sup> Further, the concern that the STB expressed with accepting a chlorine-only comparison group in *DuPont* – that the defendant railroad CSX acknowledged pricing “chlorine beyond what would otherwise be commercially justifiable, in an effort to induce substitutes for chlorine or source it from nearer locations”<sup>55</sup> – does not apply here. As explained in BNSF's

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<sup>54</sup> *US Magnesium*, at 9.

<sup>55</sup> *DuPont*, at 9.

Motion to Use 2011 Data, BNSF's March 2011 price increase applied to rates for transportation of *all* TIH commodities marketed by the IP group, not just to chlorine rates, and was not an attempt to raise rates beyond what was commercially justifiable.

**d. Local and Interline Movements**

For commercial purposes, *i.e.* rate setting and billing, the issue traffic movements are local movements that originate and terminate on BNSF. However, the issue traffic movements also have certain operational characteristics in common with interline traffic, *i.e.* movements in which two or more rail carriers participate in providing the transportation service. Canadian National ("CN") serves Canexus' facility in North Vancouver, British Columbia, Canada and delivers tank cars with Canexus' chlorine for both issue traffic movements to BNSF at a location near Vancouver. In addition, the Glendale issue traffic moves over nearly { } miles of track owned by a short-line railroad, the Arizona & California Railroad.

Given the hybrid nature of the issue traffic movements, BNSF believes it is appropriate to include both local and interline movements in its preferred case comparison group.<sup>56</sup> Moreover, BNSF's common carrier rates for single-line chlorine shipments are set out in the same price authority – tariff 90096 – as BNSF's common carrier rates for BNSF's portion of interline chlorine movements.<sup>57</sup>

The reasons that the Board excluded rebill traffic (a subset of interline traffic) in *US Magnesium* do not apply here. In *US Magnesium*, the average R/VCs for rebilled chlorine

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<sup>56</sup> To be clear, the R/VC ratio is calculated for only BNSF's portion of interline movements, and no revenue or cost information for non-defendant railroads is used.

<sup>57</sup> This price authority is available at:  
[http://www.bnsf.com/bnsf.was6/epd/EPDController?txtSrchVal=90096&SRCHTXT=90096&PAGE=PRC\\_AUTH\\_SRCH\\_HANDLER&EPDACTION=Search+Price+Authorities](http://www.bnsf.com/bnsf.was6/epd/EPDController?txtSrchVal=90096&SRCHTXT=90096&PAGE=PRC_AUTH_SRCH_HANDLER&EPDACTION=Search+Price+Authorities).

movements (475%) were more than 50% higher than the R/VCs for single-line chlorine movements (301%), leading the STB to conclude that the rebilled chlorine movements proposed by UP “do not appear comparable to the issue traffic movements.” *US Magnesium*, at 8-9. In contrast, the average R/VC ratios for the interline chlorine movements included in BNSF’s preferred comparison group for the Glendale movement ({{ }}) and Albuquerque movement ({{ }}) are similar to the average R/VC ratios for the single-line chlorine movements included in BNSF’s preferred comparison group for the Glendale movement ({{ }}) and Albuquerque movement ({{ }}).<sup>58</sup>

Accordingly, BNSF includes both local and interline movements that satisfy its other selection criteria in the comparison groups.

**e. Movements of Similar Distances**

The issue traffic movements are among BNSF’s longest chlorine movements. The actual routings for the Glendale Movement during the first three quarters of 2011 averaged { } total miles. The actual routings for the Albuquerque Movement during the first three quarters of 2011 averaged { } total miles. In *Simplified Standards* and the prior Three-Benchmark cases, the Board has made it clear that distance is a critical factor in determining whether movements are comparable.<sup>59</sup>

BNSF adopted a selection criterion that limited the movements eligible for inclusion in the comparison groups to movements with loaded miles that were within a range of plus or minus 500 miles of the actual loaded miles for the issue traffic movements. Specifically,

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<sup>58</sup> BNSF workpapers “Preferred Comparison Group Glendale.xlsx” and “Preferred Comparison Group Albuquerque.xlsx.”

<sup>59</sup> See *Simplified Standards*, at 17; *DuPont*, at 8, n. 25; *US Magnesium*, at 5.

movements eligible for inclusion in the comparison group for the Glendale Movement were transported on BNSF between { } loaded miles. Movements eligible for inclusion in the comparison group for the Albuquerque Movement were transported on BNSF between { } loaded miles.

BNSF excluded one category of chlorine movements that fits within these mileage bands from the comparison groups—movements of Canexus' chlorine that BNSF's traffic data identified as originating at Marshall, Washington. BNSF excluded these Marshall movements because Canexus stated in discovery that "the origin of Canexus' chlorine is in all instances North Vancouver, British Columbia, Canada . . ." <sup>60</sup> Since Canexus apparently considers Marshall to be an intermediate point rather than an origin, Canexus' movements that BNSF's traffic data identifies as originating at Marshall would not be comparable to the issue traffic movements that have a defined origin and destination.

The 500-mile band adopted by BNSF is broader than the mileage band used in prior Three-Benchmark cases involving the transportation of chlorine. However, the length of haul of the issue traffic movements in this case is also longer than in prior cases. Moreover, a 500-mile band is consistent in percentage terms with the mileage bands used in prior chlorine cases. In *DuPont*, the mileage band was plus or minus 150 miles of the actual loaded miles for the issue traffic movements, which represented a range of 17% of the total length of haul of one issue traffic movement and 26% of the total length of haul of the other issue traffic movement. <sup>61</sup> In *US Magnesium*, the mileage band for the selected comparison group was plus or minus 200 miles of the loaded miles for the issue traffic movements, which represented 16% of the total length of

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<sup>60</sup> January 18, 2012 Letter from Ms. Lyubchenko to Ms. Gainey, at 1.

<sup>61</sup> *DuPont*, at 8, n. 25.

haul.<sup>62</sup> A 500-mile band in this case represents a range of 20% of the total length of haul of one issue traffic movement and 24% of the total length of haul of the other issue traffic movement, within the range adopted in *DuPont* and only slightly broader than that adopted in *US Magnesium* where the STB admonished the parties for relying upon groups that were too limited. *US Magnesium*, at 9.

**f. Movements in Similar Equipment**

The issue traffic moves in tank cars that have a capacity of less than 22,000 gallons of product. A tank car is a specialized type of equipment that has different transportation characteristics than other types of cars. There are also multiple types of tank cars, and the different tank car types have different transportation characteristics and transport different products. Due to the differences in their cost characteristics, URCS distinguishes between tank cars that hold less than 22,000 gallons (URCS code 15) and tank cars that hold 22,000 or more gallons (URCS code 16). As all chlorine moves in tank cars that have a capacity of less than 22,000 gallons, the selection of chlorine movements for the comparison groups also ensures that the traffic in the comparison groups all moves in the same equipment as the issue traffic.

**g. Movements in Private Equipment**

The issue traffic moves in private cars. Under URCS, the costs associated with movements in private cars are not comparable to the costs associated with movements in cars owned by the rail carrier. Consequently, BNSF adopted a selection criterion that limited the comparison groups to movements in private cars.

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<sup>62</sup> *US Magnesium*, at 6.

#### **h. Exclusion of Issue Traffic Movements**

Since the comparison group benchmark is designed to assess the reasonableness of the issue traffic rates, BNSF excluded the issue traffic movements from the comparison group.

#### **i. Results of Applying Selection Criteria**

As indicated above, application of the selection criteria results in comparison groups for the preferred case consisting of 210 movements for the Glendale Movement and 204 movements for the Albuquerque Movement.<sup>63</sup> As shown in the table below, the average R/VC of the comparison group for the Glendale Movement is 319% and the average R/VC of the comparison group for the Albuquerque Movement is 324%.<sup>64</sup> The average R/VCs for the issue traffic movements – 291% for the Glendale Movement and 306% for the Albuquerque Movement – are lower than the R/VCs for the respective comparison groups for both issue traffic movements.

**Table 3  
Comparison Group R/VC Results,  
BNSF Preferred Case<sup>65</sup>**

	Glendale	Albuquerque
Number of Comparable Movements	210	204
R/VC <sub>COMP</sub>	319%	324%
Maximum Reasonable R/VC, before Other Relevant Factors	319%	324%

#### **2. Application of the “Revenue Need Adjustment Factor”**

Under the Board’s standard Three-Benchmark approach, once the comparison group has been selected, the R/VC ratio for each movement in the comparison group is adjusted by a

<sup>63</sup> BNSF workpapers “Preferred Comparison Group Glendale.xlsx” and “Preferred Comparison Group Albuquerque.xlsx.”

<sup>64</sup> *Id.*

<sup>65</sup> *Id.*

“revenue need adjustment factor.”<sup>66</sup> This adjustment factor is  $RSAM \div R/VC_{>180}$ . The Board publishes the 4-year average figures used for the RSAM and  $R/VC_{>180}$  benchmarks for each Class I railroad annually. Typically, however, there is approximately an 18-month delay before the benchmarks for a given year are published.<sup>67</sup> The most recent available official figures are the four-year averages for the period 2006 through 2009.

The absence of a published four-year average RSAM and  $R/VC_{>180}$  for the period corresponding to the traffic used in a comparison group could, in some cases, complicate the use of current traffic data in a Three-Benchmark analysis. In this case, however, the absence of current RSAM and  $R/VC_{>180}$  benchmarks is of no consequence for two reasons. First, the  $R/VC_{COMP}$  for the preferred comparison groups proposed by BNSF is higher than the challenged rates. Second, as shown below, there is no reasonable probability that applying the revenue need adjustment factor based on updated values for RSAM and  $R/VC_{>180}$  would reduce the  $R/VC_{COMP}$ . Since any plausible revenue need adjustment factor would produce only an upward adjustment to the  $R/VC_{COMP}$ , it is unnecessary to determine what the current RSAM and  $R/VC_{>180}$  benchmarks would be because BNSF has demonstrated that its rates are reasonable even before an upward adjustment to the  $R/VC_{COMP}$  is made through a revenue need adjustment.

If the four-year average revenue need adjustment as of 2011 could be calculated, it clearly would be greater than 1.0 and would therefore increase the maximum allowable rate. The 2011 revenue need adjustment would be calculated based on the four-year average RSAM and

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<sup>66</sup> See *US Magnesium*, at 13.

<sup>67</sup> See, e.g., *Simplified Standards for Rail Rate Cases – 2009 RSAM and  $R/VC_{>180}$  Calculations*, STB Ex Parte No. 689 (Sub-No. 2) (served July 14, 2011); *Simplified Standards for Rail Rate Cases – 2008 RSAM and  $R/VC_{>180}$  Calculations*, STB Ex Parte No. 689 (Sub-No. 1) (served July 27, 2010).

R/VC<sub>>180</sub> for 2008 through 2011. The Board has already published the benchmarks for 2008 and 2009, as shown in the table below:

**Table 4**  
**STB RSAM and R/VC<sub>>180</sub> Results for BNSF, 2008 and 2009<sup>68</sup>**

	2008	2009
<b>RSAM Markup<sup>69</sup></b>	242%	253%
<b>R/VC<sub>&gt;180</sub></b>	221%	221%
<b>Revenue Need Adjustment Ratio</b>	1.10	1.14

The Board has also determined that BNSF was revenue inadequate in 2010.<sup>70</sup> Therefore, the revenue need adjustment ratio for 2010 would, by definition, be greater than one.<sup>71</sup> As a result, for at least three of the four years 2008 through 2011, the revenue need adjustment ratio is at or significantly above one.

If one assumes for purposes of calculating a four year average that the ratio for 2010 was equal to one, the four-year average ratio can be expressed as:

$$\frac{(\text{Ratio}_{2008} + \text{Ratio}_{2009} + \text{Ratio}_{2010} + \text{Ratio}_{2011})}{4}$$

$$\frac{(1.10 + 1.14 + 1.00 + \text{Ratio}_{2011})}{4}$$

<sup>68</sup> *Simplified Standards for Rail Rate Cases – 2009 RSAM and R/VC<sub>>180</sub> Calculations*, STB Ex Parte No. 689 (Sub-No. 2) (served July 14, 2011).

<sup>69</sup> As explained by the Board in *Simplified Standards*, “[t]he RSAM benchmark is intended to measure the average markup above variable cost that the carrier would need to charge to meet its own revenue needs.” *Simplified Standards* at 19.

<sup>70</sup> *Railroad Revenue Adequacy – 2010 Determination*, STB Ex Parte No. 552 (Sub-No. 15) (served Nov. 3, 2011).

<sup>71</sup> See *Simplified Standards*, at 82 (“if a carrier is revenue inadequate, the ratio of RSAM to R/VC<sub>>180</sub> will always be greater than 1”).

From this formula, it is possible to determine how low the revenue need adjustment ratio would have to be for 2011 before the four-year average ratio could be less than one:

$$\frac{(1.10 + 1.14 + 1.00 + \text{Ratio}_{2011})}{4} \geq 1$$

$$\frac{(3.24 + \text{Ratio}_{2011})}{4} \geq 1$$

$$3.24 + \text{Ratio}_{2011} \geq 4$$

$$\text{Ratio}_{2011} \geq 0.76$$

Therefore, the four-year average revenue need adjustment would reduce the  $R/VC_{\text{COMP}}$  only if the ratio  $RSAM \div R/VC_{>180}$  for 2011 is *less than 0.76*. There is nothing to suggest that a ratio that low for 2011 is conceivable.

Given that the revenue need adjustment factor for 2008-2011 would clearly be greater than one, and that it would therefore only act to increase the level of the maximum reasonable rate, the Board need not address in this case the potentially complicated issue of how a specific current revenue need adjustment factor could be calculated. Applying such an adjustment would not change the outcome and it can therefore be ignored for purposes of this case.<sup>72</sup>

### 3. Application of a Confidence Interval

In a typical Three-Benchmark case, the  $R/VC$ s of the comparison group traffic are adjusted by the revenue need adjustment factor and a confidence interval about the mean of the

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<sup>72</sup> Since BNSF is not proposing that any revenue need adjustment factor should be applied, the concerns raised by the Board in its June 27, 2008 decisions in the three DuPont cases (STB Docket Nos. 42099, 42100, and 42101) do not apply. In that case, the Board indicated that it would be inappropriate to apply a revenue need adjustment based on the average for 2002-2005 to  $R/VC$  ratios that had been indexed to 2007 levels. Here, by contrast, BNSF has simply demonstrated that if it were possible to apply a revenue need factor based on a *contemporaneous* four year average, that factor would be greater than one. There is no issue of applying an adjustment based on one time period to data indexed to reflect a different time period.

adjusted R/VCs is then calculated. The maximum reasonable rate is then set at the upper boundary of the confidence interval in the absence of other relevant factors. There is no need to calculate a confidence interval for BNSF's preferred comparison groups since BNSF is using its full 2011 traffic data of TIH movements as the basis for selecting comparable movements rather than a sample of traffic data. In addition, the upper boundary of the confidence interval will always be greater than  $R/VC_{COMP}$ , and  $R/VC_{COMP}$  is already higher than the challenged rate in each case.

#### 4. Preferred Case Results

The results of Three-Benchmark analysis under BNSF's preferred case are summarized in Table 5 below.

**Table 5**  
**Presumed Maximum Reasonable Rates**  
**Preferred Case<sup>73</sup>**

	<u>N. Vancouver, BC to Glendale, AZ</u>	<u>N. Vancouver, BC to Albuquerque, NM</u>
Current Rate including Fuel Surcharge	\$15,445	\$18,351
Phase III Cost 4Q11	\$5,303	\$5,996
Revenue to Variable Cost Ratio	291%	306%
Presumed Maximum R/VC Ratio	319%	324%
Presumed Maximum Reasonable Rate	\$16,915	\$19,427

Under BNSF's preferred case, the presumed maximum reasonable rate for each of the issue traffic movements is higher than the challenged rate, demonstrating that the challenged rates are reasonable under the Three-Benchmark test.

<sup>73</sup> BNSF workpapers "2011 Issue RVC.xlsx," "Preferred Comparison Group Glendale.xlsx," and "Preferred Comparison Group Albuquerque.xlsx."

**B. Alternative Case**

BNSF's alternative case is based upon a comparison group that consists of movements from the Carload Waybill Sample provided to the parties in this case.

**1. Alternative Case Comparison Group Benchmark**

As explained above, movements from the Carload Waybill Sample are not comparable to issue traffic movements given the fundamental change in BNSF's pricing of TIH movements marketed by the IP group in March 2011. In addition, BNSF explained in the Motion to Use 2011 Data that there are not a sufficient number of TIH movements in the Carload Waybill Sample to create a comparison group using selection criteria that would normally be applied regardless of whether one or four years of Carload Waybill Sample movements are considered for inclusion in the comparison group. As shown in BNSF's Motion to Use 2011 Data, there are very few chlorine movements of comparable distance to the issue traffic movements in the Carload Waybill Sample. The Waybill Sample for the year 2009 contains only 4 BNSF local and rebill chlorine movements transported between { } loaded miles (a mileage band within 500 miles of the issue traffic movements).<sup>74</sup> Even if the Carload Waybill Sample data were expanded to include the years 2006-2009, the number of local and rebill chlorine movements of comparable distance would increase by only six movements, an insufficient amount to create a viable comparison group. *Id.* Consequently, if the comparison group must be selected from the Carload Waybill Sample, BNSF must make compromises from the optimal selection criteria for comparable movements to obtain a sufficient number of movements for the comparison group.

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<sup>74</sup> See Exhibit 5, Fisher VS, at 5, Table 1.

To create a viable comparison group for BNSF's alternative case, BNSF selected movements using the criteria described below. Application of the criteria results in a comparison group of 26 movements for both the Glendale Movement and the Albuquerque Movement. The movements in the two alternative case comparison groups are listed in Exhibit 8.<sup>75</sup>

**a. Movements from 2009 Carload Waybill Sample**

As BNSF explained above, BNSF believes that only one year of Waybill Sample data should be considered in selecting the comparison group. The original Three-Benchmark rule proposed by the STB provided that the parties would draw comparison group movements from the most recent year of Waybill Sample data.<sup>76</sup> The Board's decision to expand the universe of Waybill Sample Data from which comparable movements could be drawn to four years was vacated by the D.C. Circuit because the Board's "change from one year to four years' worth of data was important and potentially prejudicial." *CSX Transp. v. STB*, 584 F.3d 1076, 1083 (D.C. Cir. 2009) (vacating the "portion of the [STB's] final rule that makes four years of data available for comparison groups"). The Board's subsequent proposal to amend its rule to allow parties to use up to four years of Waybill Sample data to form comparison groups in Three-Benchmark cases<sup>77</sup> has not been adopted by the Board or approved by a reviewing court.

Moreover, there are strong reasons related to the regulatory lag issue discussed above for limiting waybill sample data used for selecting a comparison group in this case to 2009 data. As already explained, the regulatory environment for TIH transportation underwent a sea change beginning in 2008 that has fundamentally altered the market for TIH transportation. For this

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<sup>75</sup> See also BNSF workpaper "2009 CWS Chlorine Records.xlsx."

<sup>76</sup> *NPRM*, at 33.

<sup>77</sup> *Waybill Data Released in Three- Benchmark Rail Rate Proceedings*, STB Ex Parte No. 646 (Sub-No. 1) (served April 2, 2010).

reason and other market considerations discussed above, the current issue traffic rates are not comparable to pre-March 2011 BNSF rates for TIH shipments. But pre-2009 rates and variable costs on BNSF TIH movements are even more disconnected from current rates and variable costs than those in effect in 2009.

Therefore, BNSF is using 2009 Waybill Sample data, the most current Waybill Sample data available, as the source of potentially comparable movements for its alternative case.

**b. Movements with an R/VC Ratio Greater Than 180%**

In accordance with the STB's instructions in *Simplified Standards*, BNSF adopted a selection criterion that limited the comparison groups to movements with R/VC ratios greater than 180 percent. *See Simplified Standards*, at 17.

**c. Movements of Chlorine**

As explained above, both issue traffic movements are chlorine movements and the STB has expressed its preference for a comparison group of the same commodity type as the issue traffic movements. As noted above, the Board already concluded in *US Magnesium* that in a case involving a challenge to the rates for movements of chlorine, “[a]ll else being equal, local single-line *chlorine* movements would be the preferable comparison group for the issue movements.” *US Magnesium*, at 9 (emphasis added).

The 2009 Carload Waybill Sample contains 68 total chlorine movements with R/VC ratios > 180%, excluding the issue traffic movements. As explained above, only four of those 68 total chlorine movements were transported between { } loaded miles (a mileage band within 500 miles of the issue traffic movements).<sup>78</sup> To create a viable comparison group, BNSF considered various options for modifying the optimal selection criteria so that its

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<sup>78</sup> BNSF workpaper “2009 CWS Chlorine Records.xlsx.”

comparison group in the alternative case would consist of more than four movements. BNSF considered whether to expand the commodity type criterion for its comparison groups to include anhydrous ammonia movements as well as chlorine movements. BNSF also considered expanding the mileage band to include movements that were more than 500 miles longer than the issue traffic movements and more than 500 miles shorter than the issue traffic movements. As explained below, BNSF concluded that it should *not* expand the comparison group to include anhydrous ammonia movements because those movements cannot reasonably be viewed as comparable to the issue traffic chlorine movements. Rather, as explained below, BNSF decided to relax the distance criterion it used in its preferred case to obtain a sufficient number of movements for the comparison group. Accordingly, BNSF adopted a commodity type selection criterion for its alternative case that limited the comparison groups to chlorine movements.

Based on the substantially different demand and transportation characteristics of chlorine and anhydrous ammonia, BNSF concluded that it would be inappropriate to expand the comparison group to include shipments of commodities other than chlorine, particularly anhydrous ammonia. As the Board observed in *US Magnesium*, while “[a]nhydrous ammonia and chlorine share the TIH designation . . . the two commodities do not share the same relative demand characteristics, and there is some evidence that they may have dissimilar transportation risks.” *US Magnesium*, at 7. The Board chose a comparison group in *US Magnesium* sponsored by the complainant that included anhydrous ammonia only because the Board concluded that the comparison group advanced by UP had serious defects that made UP’s proposed comparison group untenable. Presented with “a choice between two imperfect groups,” the Board reluctantly selected the U.S. Magnesium comparison group containing anhydrous ammonia movements only

because it was the lesser of two evils. *Id.* at 9-11 (“USM’s understatements appear to be less than UP’s overstatement”).

Numerous differences between the demand and transportation characteristics of anhydrous ammonia and chlorine make it unreasonable to expand the comparison group of chlorine movements to include movements of anhydrous ammonia.

Different End Uses. As the Board indicated in *Simplified Standards*, at 17, the demand characteristics of different shippers are relevant to determining whether the movements of those shippers can legitimately be included in the same comparison group. The demand of a group of shippers for transportation services is directly affected by the characteristics of the markets into which those shippers sell their products. For example, if the end users of a shipper’s product are very sensitive to changes in price for that product, the shipper may have less elastic demand for transportation service – *i.e.*, the shipper may be more sensitive to changes in price by the transportation provider. Therefore, a preliminary question in determining whether different products should be included in a comparison group is whether the shipper sells its product into similar end use markets.

The end uses for chlorine and anhydrous ammonia are very different. Most chlorine is used in the production of polyvinyl chloride pipe, commonly known as PVC. *See* Testimony of The Chlorine Institute, Inc., *Common Carrier Obligation of Railroads*, STB Ex Parte No. 677, at 1-2 (Apr. 17, 2008). Chlorine is also used in smaller amounts in water treatment facilities, and in food production and healthcare settings as a disinfectant. *Id.*

By contrast, anhydrous ammonia is primarily used for agricultural purposes, as a fertilizer or in the manufacturing of other nitrogen-based fertilizers. *See* Testimony of The Fertilizer Institute, *Common Carrier Obligations or Railroads*, STB Ex Parte No. 677, at 2 (July 10,

2008). A smaller portion of anhydrous ammonia production is used in industrial applications, such as the production of certain pharmaceuticals, adhesives, blasting agents, feed supplements, personal care products, and nylon fibers. *See id.* at 3. There is virtually no overlap in end uses of chlorine and anhydrous ammonia.

**Availability of Substitutes.** Another factor affecting the demand characteristics of different shippers for rail transportation is the availability to the shipper's customers of substitute products. When a shipper's customers have numerous alternatives to the shipper's products, the shipper is likely to be more sensitive to price changes by its rail transportation providers.

The availability of substitute products also distinguishes chlorine from anhydrous ammonia. For its primary uses, chlorine currently has few substitutes. According to The Chlorine Institute, for 95 percent of its uses, there is no ready substitute for chlorine. *See* Testimony of The Chlorine Institute, Inc., *Common Carrier Obligation of Railroads*, STB Ex Parte No. 677, at 2 (April 17, 2008); *see also* Opening Comments of Canexus Chemicals Canada, L.P., *Union Pacific Railroad Co. – Pet. For Declaratory Order*, STB Finance Docket No. 35504, at 4 (filed Jan. 25, 2012) (“[T]here are very few instances where another product can easily be substituted for chlorine.”). On the other hand, anhydrous ammonia is used primarily as a nitrogen-based fertilizer, but there are numerous potential fertilizer substitutes, including other nitrogen-based fertilizers, phosphorous-based fertilizers, and those based on potassium.<sup>79</sup>

**Availability of Transportation Alternatives.** The demand elasticity of a group of shippers is also affected by the availability of transportation alternatives. Shippers that have multiple transportation alternatives will generally be more sensitive to price changes by their rail

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<sup>79</sup> *See* Harvard Report, at 61.

transportation suppliers. The Board has acknowledged that the availability of transportation alternatives is an important factor in the choice of a comparison group. *See Simplified Standards*, at 17 (“The rates available to traffic with competitive alternatives would provide little evidence of the degree of permissible demand-based differential pricing needed to provide a reasonable return on investment.”).

Rail transportation is by far the predominant mode of transportation for chlorine. According to The Chlorine Institute, approximately 85 percent of long-distance delivery of chlorine takes place by railroad tank car. *See Testimony of The Chlorine Institute, Inc., Common Carrier Obligation of Railroads*, STB Ex Parte No. 677, at 2 (Apr. 17, 2008). In contrast, according to The Fertilizer Institute, less than half of the anhydrous ammonia that is used for industrial purposes is shipped by rail; whereas barges, pipelines and trucks are responsible for most anhydrous ammonia transportation. *See Testimony of The Fertilizer Institute, Common Carrier Obligations or Railroads*, STB Ex Parte No. 677, at 6. (July 10, 2008); *see also* Harvard Report, at 12-13 (“A large quantity of ammonia travels by pipeline and barge and most local distribution to farmers occurs by truck”).

Chlorine and Anhydrous Ammonia Have Different Transportation Characteristics. The Board also looks to the transportation characteristics of different products to determine whether those products should be included in a single comparison group. *See US Magnesium*, at 7. Chlorine and anhydrous ammonia have substantially different transportation characteristics.

First, as the Board recognized in *US Magnesium*, transportation of chlorine and anhydrous ammonia present different transportation risks. Both products are highly toxic when released, but the risks associated with the release of chlorine are substantially greater given the relatively low concentrations of chlorine in the air required to cause injury. The Center for

Disease Control's National Institute for Occupational Safety and Health considers chlorine to be an immediate hazard to life or health at airborne concentrations of just 10 parts per million ("ppm").<sup>80</sup> By contrast, anhydrous ammonia presents immediate hazards at concentrations that are 30 times as great, or 300 ppm.<sup>81</sup> Chlorine releases are particularly dangerous because chlorine gas is heavier than air and therefore settles into low areas when released, whereas anhydrous ammonia is lighter than air and is likely to disperse more rapidly.<sup>82</sup>

Second, BNSF transports chlorine directly to end users, such as chemical facilities, without any involvement of trucks in the transportation service. However, farm end users of anhydrous ammonia generally obtain their product by truck from intermediate terminals that are served by BNSF.<sup>83</sup>

Third, the transportation costs of chlorine and anhydrous ammonia are different. Chlorine and anhydrous ammonia move in different sized tank cars. Chlorine moves in tank cars that have a capacity of less than 22,000 gallons, while anhydrous ammonia moves in tank cars that have a capacity of more than 22,000 gallons. Recognizing the cost impact of different equipment, URCS uses different cost inputs depending on the size of tank car used.<sup>84</sup>

Pricing Differences. Given the numerous differences in demand and transportation characteristics, it is not surprising that prices for chlorine and anhydrous ammonia rail

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<sup>80</sup> See Center for Disease Control, Nat'l Inst. for Occupational Safety & Health, *Documentation for Immediately Dangerous to Life or Health Concentrations*, available at <http://www.cdc.gov/niosh/idlh/intridl4.html>.

<sup>81</sup> *Id.* See also Harvard Report, at 10.

<sup>82</sup> Harvard Report, at 9-10.

<sup>83</sup> See Harvard Report, at 13.

<sup>84</sup> See Schedule 414 to R-1 Annual Report, URCS worktables E1 and E2, included in workpaper "BN2010.dat."

transportation are different. Chlorine and anhydrous ammonia are also handled by different product marketing groups within BNSF. Due to its primary use as an industrial chemical, chlorine is marketed by BNSF's Industrial Products group. By contrast, anhydrous ammonia is marketed by BNSF's Agricultural Products group due to its primary use as a fertilizer.

Given the substantial differences in demand and transportation characteristics of anhydrous ammonia and chlorine, anhydrous ammonia does not constitute a "like commodity" appropriate for inclusion in the comparison group applicable to the chlorine movements at issue.

**d. Local and Rebill Movements**

As explained above in Section IV.A.1.d, the issue traffic movements are local movements that share certain characteristics with interline traffic. For the same reasons that BNSF included local and interline movements in the preferred case comparison groups, BNSF includes local and rebill traffic (a subset of interline traffic) in the alternative case comparison groups. BNSF includes the rebill traffic for which BNSF separately bills the customer for BNSF's portion of the movement because the Carload Waybill Sample reports BNSF's revenues for those movements. However, BNSF does not include standard interline movements for which the customer receives one bill for the entire through movement (not a separate bill from each carrier involved in movement) because the Carload Waybill Sample does not disclose the actual revenue divisions collected by the individual carriers, but reports the results of a mileage-based prorate algorithm. In other words, the Carload Waybill Sample does not accurately reflect the carrier's revenue on standard interline movements.

Single-line and rebill chlorine movements in the 2009 Carload Waybill Sample are comparable for other reasons. The common carrier rates for the 2009 single-line and rebill movements were established in the same price authority.<sup>85</sup>

The reasons that the Board excluded rebill traffic in *US Magnesium* do not apply here. As described above, in *US Magnesium*, the average R/VCs for rebilled chlorine movements (475%) were more than 50% higher than the R/VCs for single-line chlorine movements (301%), leading the STB to conclude that the rebilled chlorine movements proposed by UP “do not appear comparable to the issue traffic movements.” *US Magnesium*, at 8-9. In contrast, the average R/VCs for the chlorine rebill movements included in BNSF’s alternative comparison group ({{        }}) are only 12% higher than the average R/VCs for the chlorine single-line movements included in BNSF’s alternative comparison group ({{        }}).<sup>86</sup>

The inclusion of rebill chlorine movements in the comparison groups expands the number of movements in the comparison groups. Applying its other selection criteria, 10 local chlorine movements qualify for the alternative comparison groups whereas 26 chlorine movements qualify if both local and rebill movements are included in the comparison groups.<sup>87</sup> Accordingly, BNSF includes both local and rebill movements that satisfy its other selection criteria in the alternative case comparison groups.

**e. Length of Movement**

As explained above in the preferred case comparison group description, during the first three quarters of 2011 the actual routings for the Glendale issue traffic movement averaged

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<sup>85</sup> BNSF workpaper “2009 CWS Chlorine Records.xlsx.”

<sup>86</sup> BNSF workpaper “2009 CWS Chlorine Records.xlsx.”

<sup>87</sup> *Id.*

{ } total miles and for the Albuquerque issue traffic movement averaged { } total miles. In *Simplified Standards* and the Three-Benchmark cases, the Board has made it clear that distance is a critical factor in determining whether movements are comparable.<sup>88</sup> Consequently, in the preferred case, BNSF adopted a selection criterion that limited the movements eligible for inclusion in the comparison groups to movements with actual loaded miles that were within a range of plus or minus 500 miles of the actual loaded miles for the issue traffic movements.

For purposes of creating the alternative case comparison groups, BNSF considered whether to expand the mileage-band for the comparison group to include movements that are outside the 500-mile band used in the preferred case to obtain a larger number of eligible movements. As explained below, BNSF determined that by expanding the mileage band to include all chlorine movements in the 2009 Carload Waybill Sample with loaded miles in excess of 500 miles, BNSF would be able to include additional movements that were sufficiently comparable to the issue traffic movements to include in the comparison groups.

By establishing the mileage criterion at 500 loaded miles, the comparison group would exclude movements that the STB has classified as short-haul movements. Specifically, in a 2009 railroad rate study, the STB classified movements of most commodities, including chemicals, with a length of haul less than 500 miles as short.<sup>89</sup> Since the issue traffic movements are long-haul movements, it is appropriate to exclude short-haul movements from the comparison groups.

In addition, a comparison of the R/VCs of movements less than 500 miles and movements longer than 500 miles supports a decision to establish the mileage cut-off at 500

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<sup>88</sup> See *Simplified Standards*, at 17; *DuPont*, at 8 n. 25; *US Magnesium*, at 5-6.

<sup>89</sup> Surface Transportation Board, Office of Economics, Environmental Analysis and Administration Section, *Study of Railroad Rates: 1985-2007*, at 5 (Jan. 16, 2009).

miles. In a comparison group that includes 2009 Carload Waybill Sample movements with loaded miles in excess of 500 miles, the shortest movement that qualifies (a {{ }}-mile movement) has an R/VC of {{ }} while the longest movement that qualifies (a {{ }}-mile movement) has an R/VC of {{ }}.<sup>90</sup> The R/VC differences for movements longer than 500 miles are not substantial. In contrast, a large number of the movements with loaded miles less than 500 miles had R/VCs substantially in excess of 300% and several had R/VCs above 375%.<sup>91</sup>

While adopting a distance criterion that creates a comparison group consisting of all chlorine movements with loaded miles in excess of 500 miles may not be optimal, it results in the addition of movements to the comparison groups that are sufficiently comparable to the issue traffic movements in a circumstance where additional movements are necessary to form comparison groups with an adequate number of movements. Moreover, given the substantial differences in demand and transportation characteristics of chlorine and anhydrous ammonia, the expansion of the comparison group based on length of haul is far preferable to expanding the comparison group to include anhydrous ammonia movements. Accordingly, in the alternative case, BNSF adopted a distance selection criterion that limits the movements eligible for inclusion in the comparison groups to movements in excess of 500 loaded miles.

#### **f. Movements in Similar Equipment**

As explained above in Section IV.A.1.f, the issue traffic moves in tank cars that transport less than 22,000 gallons of product. Accordingly, for the reasons explained in that section,

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<sup>90</sup> BNSF workpaper "2009 CWS Chlorine Records.xlsx."

<sup>91</sup> *Id.*

BNSF adopted a selection criterion that limits the comparison groups in the alternative case to movements in tank cars that have a capacity of less than 22,000 gallons of product.

**g. Movements in Private Equipment**

As explained above in Section IV.A.1.g, the issue traffic moves in private cars. Under URCS, the costs associated with movements in private cars are not comparable to the costs associated with movements in cars owned by the rail carrier. Consequently, BNSF adopted a selection criterion that limited the comparison groups to movements in private cars.

**h. Exclusion of Issue Traffic Movements**

Since the comparison group benchmark is designed to assess the reasonableness of the issue traffic rates, BNSF selected adopted a criterion that excluded issue traffic movements from the comparison group.

**i. Results of Applying Selection Criteria**

Application of the selection criteria results in comparison groups for the alternative case consisting of the same 26 movements for both the Glendale Movement and the Albuquerque Movement. As shown in the table below, the average R/VC of the comparison group is 224%.<sup>92</sup>

**2. Application of the “Revenue Need Adjustment Factor”**

As described above, once a comparison group has been determined, the R/VCs for the traffic in the comparison group are adjusted by the revenue need factor,  $RSAM \div R/VC_{>180}$ . For a comparison group that includes 2009 traffic, the four-year average RSAM for BNSF is 242%,

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<sup>92</sup> *Id.*

and the four-year average  $R/VC_{>180}$  is 228%.<sup>93</sup> The revenue need adjustment factor for BNSF's alternative comparison group is therefore 1.06 ( $242\% \div 228\%$ ).

### 3. Application of a Confidence Interval

To determine the maximum reasonable rate based on a particular comparison group, the  $R/VC$ s of the traffic in the comparison group are adjusted by the revenue need adjustment factor, 1.06, and the mean of the comparison group ( $R/VC_{COMP}$ ) is calculated.<sup>94</sup> A confidence interval about the mean is then calculated, and the maximum reasonable rate is set at the upper limit of the confidence interval.<sup>95</sup> BNSF's workpapers show the adjustment of the  $R/VC$ s for each of its alternative comparison groups, the calculation of  $R/VC_{COMP}$  for each alternative comparison group, and the confidence intervals for each  $R/VC_{COMP}$ .<sup>96</sup> The following table sets forth the results:

**Table 6**  
**Comparison Group  $R/VC$  Results,**  
**BNSF Alternative Case<sup>97</sup>**

	Glendale	Albuquerque
Number of Comparable Movements	26	26
$R/VC_{COMP}$	224%	224%
Adj. $R/VC_{COMP}$	238%	238%
Maximum Reasonable $R/VC$ , before Other Relevant Factors	247%	247%

<sup>93</sup> *Simplified Standards for Rail Rate Cases – 2009 RSAM and  $R/VC_{>180}$  Calculations*, STB Ex Parte No. 689 (Sub-No. 2) (served July 14, 2011).

<sup>94</sup> *See, e.g., US Magnesium*, at 13.

<sup>95</sup> *Id.* at 14-15.

<sup>96</sup> BNSF workpapers “STB 3B Model - Alt Case Glendale.xlsx” and “STB 3B Model - Alt Case Albuquerque.xlsx.”

<sup>97</sup> *Id.*

#### 4. Alternative Case Results

The results of Three-Benchmark analysis under BNSF's alternative case are summarized in Table 7 below.

**Table 7**  
**Presumed Maximum Reasonable Rates**  
**Alternative Case<sup>98</sup>**

	N. Vancouver, BC to <u>Glendale, AZ</u>	N. Vancouver, BC to <u>Albuquerque, NM</u>
Current Rate including Fuel Surcharge	\$15,445	\$18,351
Phase III Cost 4Q11	\$5,303	\$5,996
Revenue to Variable Cost Ratio	291%	306%
Presumed Maximum R/VC Ratio	247%	247%
Presumed Maximum Reasonable Rate	\$13,098	\$14,810

#### V. OTHER RELEVANT FACTORS

Under the Three-Benchmark methodology, parties “may submit evidence of ‘other relevant factors’ to demonstrate that the maximum lawful rate should be higher or lower” than the rate calculated using the three-benchmarks. *Simplified Standards*, at 22. The parties must “quantify the impact of these ‘other relevant factors’ on the presumed maximum lawful rate.” *Id.* Below BNSF discusses “other relevant factors” for BNSF’s preferred case and BNSF’s alternative case. The calculations supporting BNSF’s “other relevant factors” are sponsored by BNSF’s witness Mr. Fisher.

##### A. Preferred Case

Since the rates for each BNSF issue traffic movement are reasonable based on the unadjusted R/VC<sub>COMP</sub> for BNSF’s preferred comparison group, there is no need to consider any

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<sup>98</sup> BNSF workpapers “2011 Issue RVC.xlsx” and “2009 CWS Chlorine Records.xlsx”

“other relevant factors” under BNSF’s preferred case. However, as discussed below, BNSF will be incurring substantial PTC costs over the next several years and BNSF should be able to recover those PTC costs from the traffic, including issue traffic, that has given rise to BNSF’s need to make the PTC investments. Therefore, if the Board were to accept BNSF’s preferred case comparison group but nonetheless prescribe a maximum reasonable rate for the issue traffic movements, it would be necessary for the prescription to include a mechanism for adjusting the prescribed rate in the out years of the prescription period to reflect actual expenditures on PTC in years subsequent to 2011. BNSF’s “other relevant factor” evidence for its alternative case describes how such a mechanism could be implemented.

**B. Alternative Case**

BNSF proposes four “other relevant factors” that are applicable to the alternative case. Each of these “other relevant factors” provides for an upward adjustment to the maximum reasonable rate for the issue traffic movements as determined under the Three-Benchmark test. Three of the “other relevant factors” proposed by BNSF address the maximum rates that BNSF should currently be permitted to charge. The fourth “other relevant factor” establishes a mechanism under which any rate prescription would be adjusted in future years to account for additional PTC expenditures that are made by BNSF in any future years in the prescription period.

The “other relevant factors” that address the maximum rates that BNSF should currently be permitted to charge are as follows:

- **Current Rate Adjustment:** This adjustment is designed to reflect the fundamental change in BNSF’s pricing of TIH movements between 2009, the time period during which the Carload Waybill Sample movements in the alternative

comparison group were transported, and post-March 15, 2011, the time period during which the issue traffic rates have been in effect.

- **Historical PTC Adjustment:** This adjustment is designed to reflect the impact of BNSF's historical PTC costs on the maximum reasonable rate for movements of TIH, including chlorine. In 2009, BNSF incurred negligible PTC costs since the PTC mandate had only recently been established.<sup>99</sup> By the time the issue traffic rates became effective on March 16, 2011, however, BNSF had incurred substantial PTC costs and BNSF has continued to incur substantial PTC costs thereafter. BNSF produced to Canexus in discovery information showing its actual PTC capital expenditures through December 2011. As the Board has acknowledged, URCS does not adequately attribute the PTC costs incurred by BNSF to the TIH traffic responsible for those costs and, consequently, Mr. Fisher has developed an "other relevant factor" adjustment to adequately reflect previously incurred PTC costs for TIH movements.

- **Liability Risk Adjustment:** The maximum rates that BNSF should be permitted to charge should reflect the high liability risk associated with transportation of chlorine. BNSF's liability risk adjustment is designed to reflect the fact that a substantial portion of BNSF's insurance premiums are due solely to its transportation of TIH traffic. As the Board has acknowledged, URCS spreads insurance costs across all traffic rather than assigning excess premium costs caused by TIH traffic to

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<sup>99</sup> As explained in more detail below, BNSF's 2009 URCS investment base included less than {{            }} in PTC investment.

that traffic. The rates for the 2009 Carload Waybill Sample movements in the comparison group therefore do not reflect an accurate assignment of insurance costs.

BNSF is not proposing that all three of the adjustments described above be made together. BNSF believes that the Current Rate Adjustment is the most direct and effective way of addressing the regulatory lag issue, and is therefore the best “other relevant factor” to apply. If the Board accepts the Current Rate Adjustment, the Historical PTC and Liability Risk Adjustments are not necessary. If the STB does not accept the Current Rate Adjustment, both the Historical PTC Adjustment and the Liability Risk Adjustment should be applied to address, in part, different factors that have resulted in the need for significantly higher TIH rates than the TIH rates that BNSF charged in 2009.

The fourth “other relevant factor” adjustment that BNSF proposes – a Future PTC Adjustment – would apply only if the Board prescribes maximum reasonable rates and it would apply only to future prescribed rates. This adjustment is designed to reflect the need for BNSF to recover additional PTC costs that BNSF will incur after 2011. Those future PTC costs are not reflected in the data that would be the basis of a current rate prescription, nor will they be reflected in the future URCS costs that would be used to determine the future maximum rates. Thus, for example, any rates prescribed by the Board for 2012 would not reflect 2012 PTC costs because those costs are not known until the end of 2012 and BNSF’s 2012 URCS will not be available until near the end of 2013. Once actual PTC expenditures for 2012 have been determined, any maximum reasonable rate prescription for 2013 should be revised to reflect those 2012 PTC expenditures. As described below, the adjustment can easily be made based on PTC expenditure data maintained by BNSF in the ordinary course. This “other relevant factor”

based on PTC expenditures made in 2012 and beyond should be applied if the Board prescribes maximum rates regardless of whether the Board accepts the other adjustments.

### **1. Current Rate Adjustment**

The Board has recognized that use of the historic Carload Waybill Sample data “introduces some regulatory lag in the analysis. Accordingly, parties may present (as ‘other relevant factors’) evidence that the presumed maximum reasonable rate should be higher, or lower, due to market changes not reflected in the comparison group or the average RSAM and  $R/VC_{>180}$  benchmarks.” *Simplified Standards*, at 85. As explained above, the challenged issue traffic rates which went into effect in March 2011 reflect market changes that are “not reflected in the comparison group or the average RSAM and  $R/VC_{>180}$  benchmarks.” Specifically, as explained above and in BNSF’s Motion to Use 2011 Data, the challenged rates reflect the fundamental change in pricing of transportation of TIH products marketed by the IP group that was intended to bring BNSF’s rates up to market levels in light of the major changes in the transportation market for TIH products in the preceding two years. This fundamental change in pricing was not simply the result of inflationary cost increases.

As shown in Table 8 below, the increase in the average variable costs is much lower than the increase in the average 2009 revenues for the movements in the alternative comparison group to post-March 15, 2011 revenue levels for chlorine movements that satisfy the alternative group selection criteria.

**Table 8**  
**Comparison of Changes in Revenues and Variable Costs**  
**For BNSF Chlorine Movements of 500 Miles or More, 2009 to 2011<sup>100</sup>**

	2009 CWS	Post-March 15, 2011 BNSF	Percentage Increase
Revenue per Carload	{{	}}	88%
URCS Variable Costs per Carload	{{	}}	31%

The 2009 Carload Waybill Sample rates do not reflect BNSF's March 2011 fundamental change in pricing for TIH products. Consequently, BNSF is proposing a current rate adjustment for its alternative case that takes into account the market changes not reflected in the comparison group.

The Current Rate Adjustment is calculated as follows:

**Step 1.** As explained in Section IV.B.1 above, the comparison groups for the Glendale movement and the Albuquerque movement under the alternative case are the same. Mr. Fisher applied the criteria used to select movements for the alternative case comparison group described in Section IV.B.1 above to BNSF's post-March 15, 2011 traffic data produced in this case to identify 2011 BNSF movements that satisfy the same selection criteria as the movements in the alternative comparison group but that also paid rates reflecting the fundamental market change in pricing that BNSF adopted effective March 16, 2011. There were 1,177 post-March 15, 2011 movements identified through this process and they are hereafter referred to as the "Current Rate Adjustment Movements."<sup>101</sup>

<sup>100</sup> BNSF workpaper "Current Rate ORF.xlsx."

<sup>101</sup> *Id.*

**Step 2.** Next, Mr. Fisher determined the average R/VC for the Current Rate Adjustment Movements, 318%.<sup>102</sup>

**Step 3.** Mr. Fisher then compared this  $R/VC_{CURRENT}$  (318%) to the  $R/VC_{COMP}$  benchmark from the alternative comparison group, 224%. The ratio of  $R/VC_{CURRENT}$  to  $R/VC_{COMP}$  (the “R/VC difference factor”) is 1.420.

**Step 4.** While the 1.42 ratio captures the change in R/VC ratios between the alternative comparison group period (2009) and current rate levels (post-March 15, 2011), it would not be appropriate to apply this ratio to the maximum R/VCs determined by the Board after application of the revenue need adjustment and the confidence interval adjustment. Thus, a further adjustment must be made. In the *DuPont* cases,<sup>103</sup> the STB rejected the use of an other relevant factor that reflected only the changes in R/VC ratios between periods, without recognizing that the other benchmarks – namely the RSAM and  $R/VC_{>180}$  factors that account for a carrier’s revenue need – cannot be assumed to remain constant over time. To avoid this difficulty, Mr. Fisher further adjusts the R/VC difference factor (1.420) to eliminate the impact of applying a revenue need adjustment factor. In addition, Mr. Fisher adjusts the R/VC difference factor to eliminate the impact of the confidence interval adjustment to reflect the fact that the current rate levels are not based on a sample.

As explained above, the movements in BNSF’s alternative comparison group have an average R/VC of 224%. After application of the revenue need adjustment factor that incorporates the 2006-2009 RSAM and  $R/VC_{>180}$  benchmarks and the determination of the upper

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<sup>102</sup> *Id.*

<sup>103</sup> *E.I. DuPont de Nemours & Co. v. CSXT Transp., Inc.*, STB Docket Nos. 42099, 42100, and 42101 (three decisions served June 27, 2008).

boundary of the confidence interval, the maximum reasonable R/VC for the alternative comparison group is 247%. Thus, the factor by which the  $R/VC_{COMP}$  is increased by these adjustment is 10.3% (247% divided by 224% = 1.103). To avoid making an adjustment that assumes that the revenue need and upper boundary adjustments based on the 2006-2009 traffic would apply to the current period, Mr. Fisher reduces the R/VC difference factor to eliminate the effect of these adjustments on the alternative comparison group, producing a Current Rate Adjustment of 1.287 (1.420 divided by 1.103 = 1.287). The following shows the development of the adjustment.

$$\text{Current Rate Adjustment} = \frac{\text{Maximum } R/VC_{CURRENT}}{\text{Maximum } R/VC_{COMP}}$$

$$\text{Maximum } R/VC \text{ for Post-March 15, 2011 period} = R/VC_{CURRENT} \times \text{Rev. Need}_{CURRENT} + \text{Upper Boundary}$$

$$\text{Maximum } R/VC \text{ for Alternative Comparison Group} = R/VC_{COMP} \times \text{Rev. Need}_{2006-2009} + \text{Upper Boundary}$$

$$\begin{aligned} \text{Current Rate Adjustment} &= \frac{R/VC_{CURRENT} \times \text{Rev. Need Ratio}_{CURRENT} + \text{Upper Boundary}}{R/VC_{COMP} \times \text{Rev. Need Ratio}_{2006-2009} + \text{Upper Boundary}} \\ &= \frac{318\% \times 1.00^{104}}{247\%} \\ &= 1.287 \end{aligned}$$

The following table summarizes the results of applying the Current Rate Adjustment in the alternative case.

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<sup>104</sup> BNSF explained above that there is no reasonable likelihood that the revenue need adjustment for the 2008-2011 period would be less than 1.00. See Section IV.A.2. Similarly, use of a confidence interval always increases the maximum reasonable rate level. By eliminating the entire effect of the 2006-2009 revenue need adjustment and of the confidence interval, without making any adjustment to incorporate the revenue need that continues to exist in 2011, the Current Rate Adjustment developed above represents the minimum adjustment that applies.

**Table 9**  
**Maximum R/VC Ratios for Alternative Comparison Group**  
**Incorporating Current Rate Adjustment<sup>105</sup>**

	<b>Issue Traffic R/VC</b>	<b>Max R/VC for Alternative Comparison Group</b>	<b>Current Rate Adjustment</b>	<b>Max R/VC w/ Current Rate Adjustment</b>
Glendale	291%	247%	1.287	318%
Albuquerque	306%	247%	1.287	318%

In sum, the fourth quarter 2011 R/VCs for the issue traffic movements – 291% for the Glendale Movement and 306% for the Albuquerque Movement – are lower than the R/VCs for the alternative comparison group when the Current Rate Adjustment is applied. Application of the Current Rate Adjustment to BNSF’s alternative case demonstrates that the challenged rates for the issue traffic movements are reasonable under the Three-Benchmark test.

## 2. Historical PTC Adjustment

If the Board does not apply BNSF’s Current Rate Adjustment, an adjustment is necessary to reflect the substantial expenditures that BNSF has made on PTC since 2009. BNSF had not incurred material PTC costs when the rates reflected in the 2009 Waybill Sample were assessed and the 2009 R/VC ratios therefore do not reflect PTC costs. BNSF did make substantial actual PTC expenditures in 2010 and 2011 which must be reflected in maximum reasonable rates. As noted previously, URCS does not properly attribute BNSF’s historical PTC costs to the issue traffic and other TIH movements. Therefore, BNSF’s historical PTC costs incurred after 2009 will not be reflected in the maximum rate calculations merely by using updated URCS as new URCS costs become available.

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<sup>105</sup> BNSF workpaper “Current Rate ORF.xlsx.”

By Congressional mandate, all Class I railroads are required to implement PTC. As noted above, in 2008, Congress passed the RSIA (promulgated at 49 U.S.C. § 20157) that requires all Class I railroads and all intercity passenger and commuter railroads to implement a PTC system by December 31, 2015, on main line track carrying either passengers or at least a specified minimum quantity of TIH materials. PTC is a system designed to increase railroad safety by overriding the engineer's control of the train in certain situations, automatically stopping the train. PTC is intended to prevent train-to-train collisions, derailments caused by excessive speed, unauthorized incursions onto sections of track where maintenance activities are taking place, and the movement of a train through a track switch left in the wrong position.<sup>106</sup>

Implementing PTC is a complex and very costly process. PTC systems are comprised of digital data link communications networks, continuous and accurate positioning systems, on-board computers with digitized maps on locomotives and maintenance-of-way equipment, in-cab displays, throttle-brake interfaces on locomotives, wayside interface units at switches and wayside detectors, and control center computers and displays.<sup>107</sup> PTC is not a ready-made system. Central components of the technology must be designed, tested, and adapted for the specific rail lines on which it will be used. The AAR estimates that more than 73,000 freight route-miles and 17,000 locomotives will require PTC installation.<sup>108</sup> BNSF has plans to install

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<sup>106</sup> See Positive Train Control Systems, 75 Fed. Reg. 2,611 (Jan. 15, 2010); see also Federal Railroad Admin., *Overview, Highlights and Summary of the Rail Safety Improvement Act of 2008* (March 10, 2009), available at <http://www.fra.dot.gov/downloads/RSIA%20Overview%20031009.pdf>.

<sup>107</sup> Federal Railroad Admin., *Positive Train Control (PTC), Intelligent Railroad Systems*, available at <http://www.fra.dot.gov/pages/784.shtml>.

<sup>108</sup> See Assoc. of Amer. Railroads, *Positive Train Control*, (March 2011), available at [http://www.aar.org/KeyIssues/~/\\_media/aar/Background-Papers/Positive-Train-Control-03-2011.ashx](http://www.aar.org/KeyIssues/~/_media/aar/Background-Papers/Positive-Train-Control-03-2011.ashx); AAR\_Hazmat-by-Rail.pdf.

PTC on about {{ }} miles of its track and to equip approximately {{ }} locomotives with PTC.<sup>109</sup>

The cost to install PTC, most of which will be borne by the Class I railroads, is immense. The FRA has estimated that it will cost up to \$13.2 billion to install and maintain PTC over the next 20 years, making PTC the most expensive federal mandate in history for America's railroads.<sup>110</sup> As of December 2011, BNSF had spent {{ }} million to install PTC and currently anticipates investing an additional {{ }} to implement PTC fully on its system.<sup>111</sup>

Because of the emergence of these significant PTC costs between 2009 and the current period, maximum reasonable rate levels for current rates on TIH traffic must reflect PTC costs. It would be wrong to assume that this will happen simply because the Board uses R/VC ratios to prescribe rates and URCS, beginning with 2010, will reflect PTC expenditures. The Board has recognized that URCS as currently implemented does not properly attribute PTC costs to the traffic that is responsible for the expense because URCS spreads costs that are attributable to TIH transportation across all traffic. The Board noted:

There may be unique operating costs associated with the transportation of hazardous materials, however, that URCS does not attribute to those movements. For example, transportation of hazardous material may require the carriers to pay higher insurance premiums. While carriers report those insurance expenses in the R-1 reports, URCS spreads those expenses across all traffic of the railroad, rather than attributing those higher insurance costs specifically to the transportation of the hazardous materials. Nor does the Uniform System of Accounts (USOA)—which Class I

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<sup>109</sup> See June 30, 2011 BNSF Implementation Plan at BNSF-GLEN-ALBQ00004539; BNSF-GLEN-ALBQ00006514.xls.

<sup>110</sup> Positive Train Control Systems, 75 Fed. Reg. 2,684 (Jan. 15, 2010).

<sup>111</sup> BNSF-GLEN-ALBQ00005001.xlsx.

carriers must use to prepare the financial statements that they submit to the Board—include a separate classification for hazmat operations so as to allow an accounting of the assets used and costs incurred in providing such service.

*Class I Railroad Accounting and Financial Reporting – Transportation of Hazardous Materials*, STB Ex Parte No. 681, slip op. at 2 (served Jan. 5, 2009). The Board therefore sought comments on “how it should improve its informational tools to better identify and attribute the costs of hazardous-material transportation movements.” *Id.* The Board envisioned a process by which both separate reporting of TIH-related costs and modifications to the manner in which URCS attributed those costs would be required.

Subsequently, in response to a petition by Union Pacific Railway Company, the Board issued a notice of proposed rulemaking in *Reporting Requirements for Positive Train Control Expenses and Investment*, STB Ex Parte No. 706 (served Oct. 13, 2011). In that notice, the Board proposed to add reporting requirements to railroad R-1 filings so that PTC costs could be separately identified. The Board noted that expenditures on PTC “are projected to be high,” that railroads had already begun to incur PTC costs, and that “PTC costs carry the distinction of representing a relatively specific set of expenditures prompted directly by legislative mandate.” *Id.* at 4.

To avoid an arbitrary result, BNSF’s substantial actual PTC expenditures from 2010 and 2011 should be reflected in current maximum reasonable rates. Those PTC expenditures should be allocated to the traffic that is responsible for the investment. As the Board noted, BNSF is incurring PTC costs as the result of a “legislative mandate.” By statute, railroads are required to install PTC by December 31, 2015, on all mainlines over which they transport defined poison- and toxic-by-inhalation traffic and all mainlines used by intercity or commuter rail traffic. 49

U.S.C. § 20157(a). BNSF's PTC expenses are therefore directly attributable to its TIH and passenger traffic.

It would be arbitrary for the Board to prescribe maximum reasonable rates in a manner that does not reflect BNSF's right to recover PTC expenses that it is required to incur by law. It would also be arbitrary for the Board to prescribe maximum reasonable rates in a manner that ignores the fact that PTC costs are directly attributable to TIH and passenger traffic and would not be incurred for other types of traffic.

BNSF produced to Canexus detailed information regarding BNSF's actual expenditures through December 31, 2011 for installing PTC. BNSF provided Capital Project Approval Requests ("CPAR") documents that describe the scope and spending for PTC-related projects. BNSF also produced detailed spending records for the {{ }} individual Authorization for Expenditure ("AFE") projects, identifying the amount authorized and the amount spent through year-end 2011, by subdivision.<sup>112</sup> These materials indicate that BNSF has invested more than {{ }} million in PTC projects as of December 2011,<sup>113</sup> with the majority associated with signal equipment and the remainder in other telecommunications equipment, equipment for locomotives, and computer systems – the Network Control Systems "back office" support and related technology.<sup>114</sup>

BNSF also produced to Canexus R-1 Annual Report accounting schedules corresponding to the PTC expenditures, specifically versions of Schedules 330 and 335 that isolate those

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<sup>112</sup> BNSF-GLEN-ALBQ00005002.xlsx.

<sup>113</sup> This total includes only BNSF's net spending amount reported to road property and equipment property accounts, and does not include another {{ }} million that was reimbursed by other companies or reported to other asset accounts. BNSF-GLEN-ALBQ00005001.xlsx.

<sup>114</sup> BNSF-GLEN-ALBQ00005003.xlsx.

amounts related to PTC as of year-end 2009, 2010, and 2011.<sup>115</sup> These materials indicate that as of year-end 2011, BNSF's PTC spending has added nearly {{ }} million to its system-wide gross investments in road and equipment property.<sup>116</sup> Table 10 below presents the cumulative gross investment balances at year-end for BNSF's PTC expenditures, which are reported across eight different property accounts, such as signals and interlockers (STB property account #27), locomotives (account #52), and communications systems (account #26).

**Table 10**  
**PTC-Related Gross Investment by Property Account**  
**\$ in Millions at Year End<sup>117</sup>**

<b>STB Property Account</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
9 - Rail and other track material	{{		
16 - Station and office buildings			
26 - Communications systems			
27 - Signals and interlockers			
52 - Locomotives			
58 - Miscellaneous equipment			
59 - Computer systems & WP equipment			
90 - Construction work in progress			
<b>PTC Gross Investment at Year-End</b>			<b>}}</b>

Table 10 above indicates that at year-end 2011, {{ }} of BNSF's PTC actual expenditures remain in STB Property Account 90, Construction Work in Progress. The STB's current URCS costing model does not include such amounts when assigning variable costs to individual movements. When the STB examines more closely the necessary changes to

<sup>115</sup> Class I carriers report gross investment additions, retirements, and balances in Schedule 330 and annual depreciation charges and accumulated depreciation balances in Schedule 335.

<sup>116</sup> See BNSF-GLEN-ALBQ00005003.xlsx. The investment balances in the Schedule 330 may be slightly higher than the spending amounts reported by AFE, due to the fact that capitalized interest associated with the investments is not included in BNSF's AFE records by individual project, but is reported with the investment totals in the R-1.

<sup>117</sup> BNSF workpaper "PTC 330 and 335\_BNSF Opening.xlsx."

URCS to account more accurately for PTC and other costs related to handling hazardous materials, the treatment of Account 90 should be addressed. However, to avoid complicating BNSF's proposed PTC adjustment in this Three-Benchmark case, BNSF does not include these Account 90 balances in calculating the PTC other relevant factor here.<sup>118</sup>

Developing an adjustment to the issue traffic variable costs to reflect BNSF's historical PTC investments can be performed in four straightforward steps:

1. Convert the PTC investment expenditures to URCS variable costs;
2. Allocate the PTC costs among the relevant cost drivers;
3. Assign the PTC costs to the issue traffic; and
4. Quantify the PTC variable costs that are allocated to the issue traffic movements under the current URCS system-average approach and modify the PTC adjustment to avoid any potential double-count.

**Step 1 – Convert PTC Investments to URCS Variable Costs.** First, the PTC investment and depreciation amounts reported in Schedule 330 and Schedule 335 are converted to variable capital costs – that is, variable return on investment and variable annual depreciation expenses – using the same process that the URCS model follows for road and equipment assets.

The variable return on net investment is calculated by:

- a) subtracting from gross investment the accumulated depreciation balance to obtain net investment;

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<sup>118</sup> The detailed and specific information BNSF has provided with respect to PTC costs that it has actually incurred distinguish this case from *US Magnesium*. There, the Board rejected a PTC adjustment advocated by UP for expenditures UP expected to make in the future. The Board concluded that shippers should not be required to pay in advance for improvements that will be made in the future and that UP had not adequately established its PTC expenditures. *Id.* at 17. Here, BNSF has documented actual, historical expenditures and provides a reasonable mechanism for allocating those expenditures to the issue traffic.

- b) adjusting the net investment for working capital and deferred taxes;<sup>119</sup>
- c) multiplying the adjusted net investment by the industry cost of capital<sup>120</sup> to obtain an annual return amount; and
- d) multiplying the annual return by the URCS variabilities for the corresponding property accounts, *e.g.*, 50% for signals and certain other road property accounts and 100% for locomotive equipment.<sup>121</sup>

The process to determine the annual variable depreciation expense is also straightforward: multiply the Schedule 335 depreciation amounts by the corresponding URCS variabilities.<sup>122</sup> Table 11 below presents the results of this first step, the annual return on net investment and depreciation amounts associated with BNSF's PTC investments.<sup>123</sup> In summary, BNSF's variable costs associated with its PTC investments increased by approximately {{ }} million in each year 2010 and 2011, from {{ }} thousand in 2009 to {{ }} million in 2010 and {{ }} million in 2011.

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<sup>119</sup> The STB's 2010 BNSF URCS indicates a 1.4% increase to the investment base for working capital and a 36.2% reduction for deferred taxes. BNSF notes that use of the system-wide deferred tax ratio overstates the reduction to net investment – and thus understates the variable costs – for the recent PTC investments. *See* BNSF workpaper “BN2010.DAT,” worktable B5 Part 3.

<sup>120</sup> The pre-tax cost of capital incorporated in the STB's 2010 URCS is 16.39%.

<sup>121</sup> The STB's 2010 BNSF URCS identifies the following variabilities by property account: Rail & OTM and Signals (URCS worktables D1 and D2) = 50%; Locomotives and Miscellaneous Equipment (D1-D4) = 100%; Stations, Communications Systems, and Computers (D8) = 55%. *See* BNSF workpaper “BN2010.DAT.”

<sup>122</sup> For certain property accounts (*e.g.*, Stations, Communications Systems, and Computers), the variability applied to annual depreciation expenses is 77%, not the 55% that is applied to return on net investment costs. *See* BNSF workpaper “BN2010.DAT.”

<sup>123</sup> To be clear, the figures shown in Table 11 represent the annual variable return and depreciation costs associated with BNSF's PTC investments, and are not the costs associated only with PTC expenditures made in that year. For example, the “2011” amounts reflect the return on investments and depreciation costs associated with investments made in 2010 and those made in 2011.

**Table 11**  
**Cumulative Variable Return and Depreciation Costs**  
**Associated with BNSF's PTC-Related Investments**  
**\$ in 000s<sup>124</sup>**

<b>Year</b>	<b>Variable Return on Net Investment</b>	<b>Variable Annual Depreciation</b>	<b>Annual Variable Costs of PTC Investments</b>
2009	{{		}}
2010	{{		}}
2011	{{		}}

**Step 2 – Allocating PTC Investment Costs.** After identifying the PTC-related expenses, the second step is to determine the basis for assigning the PTC costs to specific traffic. It is common for URCS – and costing models more broadly – to identify certain types of costs and assign them only to the traffic that is responsible for incurring the costs. For example, in addition to investments in rails, ties, and ballast, BNSF reports investments in intermodal terminals in Schedule 330 to its R-1. Rather than spread those terminal investments across all gross ton-miles as is done for most property investment, URCS assigns the return on net investment and annual depreciation expense associated with intermodal terminals only to intermodal shipments, and does not allocate any portion of those costs to non-intermodal shipments. Similarly, BNSF's PTC adjustment limits the assignment of the return on net investment and annual depreciation expense associated with BNSF's PTC expenditures to TIH traffic, and does not spread such costs across all freight traffic.

The mechanics of the PTC allocation involve determining what traffic is responsible for BNSF's obligation to install PTC which, as discussed previously, is limited to TIH and intercity

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<sup>124</sup> BNSF workpaper "PTC 330 and 335\_BNSF Opening.xlsx."

and commuter passenger traffic. BNSF produced to Canexus detailed information regarding the subdivisions and associated mileages to be equipped with PTC, and classified the segments into one of three categories: (1) segments with only TIH traffic and no passenger (“TIH Only”); (2) segments with both TIH traffic and passenger traffic (“Joint”); and (3) segments with passenger traffic and no TIH traffic (“Passenger Only”).<sup>125</sup> For “TIH Only” segments, the costs are assigned entirely to TIH traffic; similarly, for “Passenger Only” segments, none of the costs associated with those segments are assigned to TIH traffic.<sup>126</sup> For “Joint” segments, the costs are assumed to be split 50/50 (evenly) between TIH and passenger volumes.<sup>127</sup> Table 12 below summarizes the number of PTC miles by segment category, and shows the corresponding assignment split between TIH and passenger. Assigning 100% of the PTC costs on “TIH Only” segments (51% of the total PTC route miles), and assigning 50% of the PTC costs on “Joint” segments (46% of the total miles), results in 74% of BNSF’s overall PTC investment being assigned to TIH traffic.<sup>128</sup>

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<sup>125</sup> BNSF-GLEN-ALBQ00006514.xls.

<sup>126</sup> The PTC expenditures that BNSF has made and reported in its property investment balances in Schedule 330 do not include amounts reimbursed by other entities, including passenger railroads. In fact, BNSF’s discovery materials identify {{ }} million in contributions and reimbursements made by such third parties – see BNSF-GLEN-ALBQ00005001.xlsx – which BNSF explicitly excluded from its calculation of PTC investment costs.

<sup>127</sup> Allocating half of the PTC costs on these segments to passenger traffic and half to TIH traffic reflects the fact that either traffic group would independently trigger the requirement to install PTC on those segments. Because it is unlikely that BNSF will be compensated by commuter or other government or quasi-governmental entities for PTC investment triggered by the existence of passenger service, its assumption to attribute half of the PTC investment on joint TIH and passenger lines segments is conservative.

<sup>128</sup> The mileage totals in Table 12 reflect BNSF’s current proposal to install PTC in 78 subdivisions. If the mileages from BNSF’s earlier PTC plan to equip 96 subdivisions were used, the resulting overall assignment to TIH would be higher, 77%. See BNSF workpaper “PTC SubDetail\_BNSF Opening.xls.”

**Table 12  
BNSF PTC Route Mileages by Segment Category<sup>129</sup>**

	<b>TIH Only</b>	<b>Joint</b>	<b>Passenger Only</b>
<b>PTC Route Miles</b>	{{		}}
<b>% of PTC Miles</b>	51%	46%	3%
<b>Assignment to TIH</b>	100%	50%	0%

Once the PTC investment is allocated between TIH and passenger traffic, a means of distributing the TIH portion of the investment to individual TIH shipments is required. For this allocation, Mr. Fisher concluded that PTC costs should be assigned on the basis of loaded car-miles. BNSF produced a detailed report of loaded TIH car-miles by subdivision and line segment for each year 2009 and 2010, and for 2011 through November.<sup>130</sup> BNSF's workpapers summarize this report, indicating that the total TIH system-wide loaded car-miles ranged from {{ }} million annually.<sup>131</sup> The segment detail also indicated that {{ }}% of these car-miles were generated on non-BNSF segments where BNSF moves shipments over the lines of other carriers via trackage rights or other sharing arrangements.<sup>132</sup> As BNSF's expenditures are for PTC installations on its segments, the allocation should be limited to loaded car-miles generated on BNSF-owned tracks. Mr. Fisher calculates a PTC cost per car-mile on the basis of the corresponding {{ }} million loaded TIH car-miles on its segments.<sup>133</sup> Table 13 below

<sup>129</sup> BNSF workpaper "PTC SubDetail\_BNSF Opening.xls."

<sup>130</sup> BNSF-GLEN-ALBQ00005000.csv.

<sup>131</sup> BNSF workpaper "2009 2011 TIH Car Miles.xls."

<sup>132</sup> *Id.*

<sup>133</sup> BNSF workpaper "PTC 330 and 335\_BNSF Opening.xlsx." BNSF notes that within URCS intermodal terminal costs are assigned on the number of intermodal containers, not car-miles. Such terminal costs vary with the number of loadings and unloading (or lifts, for containers), and do not vary with the length of haul. BNSF's PTC requirements, however, are predominately

summarizes the annual variable costs for PTC investments in 2010 and 2011 and the corresponding TIH allocation and car-mile assignment. The annual variable cost of BNSF's PTC investments is \$0.70 per loaded TIH car-mile for 2010 and \$1.39 per loaded TIH car-mile for 2011.<sup>134</sup>

**Table 13**  
**Variable PTC Investment Costs per TIH Car-Mile**  
**Figures in 000s, except Cost per Car-Mile<sup>135</sup>**

PTC Investments	Annual Variable Costs of PTC Investments	Portion Assigned to TIH (74%)	Loaded TIH Car-Miles	Variable PTC Cost per TIH Car-Mile
2010	{{		}}	<b>\$0.70</b>
2010+2011	{{		}}	<b>\$1.39</b>

**Step 3 – Assigning PTC Investment Costs to Issue Traffic.** The third step involves assigning the PTC costs to the issue traffic. This requires identifying the number of loaded car-miles for each of the Albuquerque and Glendale movements, and multiplying the cost per car-mile by the respective car-miles. To determine the car-miles, only the segments for which BNSF is planning to install PTC are counted. Specifically, Mr. Fisher does not include in its total loaded car-miles the UP or ARZC segments traversed by the issue traffic, or {{

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associated with signal investments that vary directly with the number of miles that are required to be equipped. As longer-haul TIH movements will generally necessitate a larger PTC footprint than shorter moves, an allocation on the basis of car-miles is reasonable. Further, URCS assigns most track assets on the basis of miles, specifically gross ton-miles. Finally, certain other accounts that are not directly assigned to ton-miles by URCS – such as communication systems and computers – are included in the ROI or depreciation overhead that is effectively allocated on a mileage basis as well, as it is applied proportionately to the track assets that are assigned predominately on GTM.

<sup>134</sup> BNSF workpaper “PTC 330 and 335\_BNSF Opening.xlsx.”

<sup>135</sup> BNSF workpaper “PTC 330 and 335\_BNSF Opening.xlsx.”

}} When only the BNSF PTC segments are considered, the PTC cost per car-mile is applied to corresponding PTC route-mile totals of { } for Glendale and { } for Albuquerque.

**Step 4 – Removing System-Average Allocation of PTC Investments and Calculating the Other Relevant Factor.** Finally, in order to avoid double-counting PTC costs, the amount of PTC variable cost assigned to the issue-traffic movements by the system-average URCS approach must be netted out of any PTC adjustment. BNSF's most recent available URCS is for the year 2010. Under Board procedures, the most recent URCS costs are indexed to current levels using a standard indexing formula. In order to compute the correct PTC adjustment for 2011 movements, the amount of PTC variable cost allocated to the issue traffic shipments by the 2010 URCS must be quantified. Under the STB's current system-average approach, the 2010 URCS assigns to the Albuquerque and the Glendale movements less than {{ }} per carload in variable costs for PTC-related investments.<sup>136</sup> To avoid a double-count of PTC costs, this relatively small amount must be eliminated from the URCS results before adding the PTC costs that have been calculated for TIH traffic. Table 14 below shows the PTC adjustment factor that would be necessary to reflect BNSF's PTC investments made in 2010, and the investments made in 2010 and 2011 combined, net of the small amount of PTC variable costs assigned under the system-average URCS approach. The factor based on 2010 PTC investments would be applied to determine maximum reasonable rate levels for 2011, and the factor based on cumulative 2010

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<sup>136</sup> BNSF workpaper "PTC and Insurance Expenses in 2010 BNSF URCS.xlsx." As Table 14 below summarizes the costs of BNSF's historical PTC investments separately for 2010 and for 2010 and 2011 combined, the system-average PTC costs for 2011 reflect the results of allocating the 2011 investments under the current URCS approach.

and 2011 PTC expenditures would be applied to determine maximum reasonable rate levels for 2012.

**Table 14**  
**Variable PTC Investment Costs for Issue Traffic<sup>137</sup>**

	<b>BNSF PTC Miles</b>	<b>Variable PTC Costs</b>	<b>System-Average PTC Costs</b>	<b>System-Average Variable Costs</b>	<b>Total Variable Costs</b>	<b>Other Relevant Factor</b>
<i>2010 PTC Investments</i>						
Glendale	{{				}}	<b>1.19</b>
Albuquerque	{{				}}	<b>1.25</b>
<i>2010+2011 PTC Investments</i>						
Glendale	{{				}}	<b>1.38</b>
Albuquerque	{{				}}	<b>1.49</b>

In summary, applying an other relevant factor to account for PTC results in maximum R/VC ratios in excess of the current R/VC ratios for the challenged rates.

**Table 15**  
**Maximum R/VC Ratios including Other Relevant Factor for 2010-2011 PTC Investment Costs<sup>138</sup>**

<b>Destination</b>	<b>Issue Traffic R/VC 1/</b>	<b>2010 Investments</b>		<b>2010+2011 Investments</b>	
		<b>Other Relevant Factor</b>	<b>2011 Maximum R/VC 2/</b>	<b>Other Relevant Factor</b>	<b>2012 Maximum R/VC 2/</b>
Glendale	291%	1.19	294%	1.38	341%
Albuquerque	306%	1.25	309%	1.49	368%

1/ Current R/VC, as of 4th Quarter 2011.

2/ Based on multiplying the 247% maximum R/VC for BNSF's Alternative Comparison Group from the 2009 Carload Waybill Sample by the corresponding other relevant factor.

<sup>137</sup> BNSF workpaper "PTC 330 and 335\_BNSF Opening.xlsx."

<sup>138</sup> *Id.*

### 3. Liability Risk Adjustment

The transportation of TIH commodities, and in particular chlorine, presents enormous liability risks for BNSF. It is possible to quantify at least a portion of that liability risk by looking at the incremental insurance costs that BNSF incurs as a result of its handling of TIH. As the Board noted in *Class I Railroad Accounting and Financial Reporting – Transportation of Hazardous Materials*, STB Ex Parte No. 681, transportation of hazardous materials causes higher insurance premiums for rail carriers. The Board further noted that “URCS spreads those expenses across all traffic of the railroad, rather than attributing those higher insurance costs specifically to the transportation of the hazardous materials.” *Id.* at 2. The maximum reasonable rate for transportation of TIH should reflect the incremental insurance costs attributable to that TIH traffic. Given that URCS does not make this attribution, an adjustment to the R/VC ratios is required.

Documents produced by BNSF in discovery demonstrate that, in the ordinary course of business, BNSF had determined the extent to which transportation of TIH traffic increased its insurance premiums.<sup>139</sup> BNSF determined that in the absence of TIH traffic, it would have {{ }} in liability coverage, of which {{ }} would be self-insured.<sup>140</sup> The amount of insurance carried by BNSF in excess of {{ }} is directly attributable to TIH, and the difference between the premium BNSF actually pays, and the premium it would pay for {{ }} in liability coverage is therefore the amount of annual insurance cost that is caused by TIH traffic. BNSF’s documents indicate that it incurs {{ }} in expense for {{ }} in liability coverage, and that the expenses above that are

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<sup>139</sup> See BNSF-GLEN-ALBQ00001104 through 1108.

<sup>140</sup> See BNSF-GLEN-ALBQ00001104 through 1106.

associated with the higher coverage that BNSF attributes solely to TIH traffic.<sup>141</sup> In order to calculate an other relevant factor to better attribute the liability risk to the appropriate TIH traffic, Mr. Fisher followed a series of steps similar to that used to determine the Historical PTC Cost Adjustment, as described in the prior section.

Mr. Fisher first converted the amount of insurance expense that BNSF determined is related exclusively to handling TIH traffic to a variable cost.<sup>142</sup> As insurance costs are reported across 12 different accounts in Schedule 410, Mr. Fisher calculated a weighted-average variability of 73% from the 2010 URCS.<sup>143</sup> Second, Mr. Fisher employed the same allocation approach for the TIH insurance costs that was used for the PTC costs, allocating the costs to loaded TIH car-miles on BNSF segments.<sup>144</sup> Table 16 below presents the results of these first two steps, identifying system-wide variable insurance costs per car-mile attributed solely to TIH traffic of \$0.45 for 2011.<sup>145</sup>

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<sup>141</sup> As shown in Table 16 below, this approach identifies approximately {{ }} of BNSF's costs of liability insurance as associated exclusively with TIH traffic.

<sup>142</sup> BNSF workpaper "TIH Insurance\_BNSF Opening.xlsx."

<sup>143</sup> BNSF workpaper "PTC and Insurance Expenses in 2010 BNSF URCS.xlsx."

<sup>144</sup> Other allocation approaches may be reasonable, but since BNSF is sponsoring a PTC adjustment that allocates PTC costs based on car-miles, Mr. Fisher allocated insurance costs on the same basis for the sake of simplicity. Given that liability risk is in part affected by distance traveled, such an allocation approach is sensible.

<sup>145</sup> BNSF's workpapers also include the similar calculation for 2010 liability expenses, which produces a TIH-related variable insurance cost per car-mile of \$0.41. See BNSF workpaper "TIH Insurance\_BNSF Opening.xlsx."

**Table 16**  
**TIH-Related Variable Insurance Cost per Car-Mile**  
**Figures in Millions, except Cost per Car-Mile<sup>146</sup>**

<b>Year</b>	<b>Total Annual Liability Expense</b>	<b>Portion Associated with Coverage &gt;{{ }}</b>	<b>Variable Portion (73%)</b>	<b>Loaded TIH Car-Miles</b>	<b>Variable Cost per Car-Mile</b>
2011	{{			}}	<b>\$0.45</b>

Mr. Fisher next calculated the total variable TIH insurance cost per car-mile attributable to the issue-traffic movements. Mr. Fisher subtracted from this amount the TIH-related insurance costs that are allocated to the issue-traffic movements under the current URCS system-average approach, which were calculated to be less than {{ }} per carload. Table 17 summarizes these steps, and shows the Liability Risk Adjustment of 13-16% (depending on destination) to be applied to the issue-traffic movements.

**Table 17**  
**TIH-Related Variable Insurance Costs for Issue Traffic<sup>147</sup>**

<b>Destination</b>	<b>BNSF TIH Miles</b>	<b>Variable Insurance Costs</b>	<b>System-Average Insurance Costs</b>	<b>System-Average Variable Costs</b>	<b>Total Variable Costs</b>	<b>Other Relevant Factor</b>
Glendale	{{				}}	<b>1.13</b>
Albuquerque	{{				}}	<b>1.16</b>

Table 18 below shows the results of applying BNSF's Liability Risk Adjustment on the maximum R/VC ratio for the alternative comparison group.

<sup>146</sup> BNSF workpaper "TIH Insurance\_BNSF Opening.xlsx."

<sup>147</sup> *Id.*

**Table 18  
Maximum R/VC Ratios for Alternative Comparison Group  
Including Other Relevant Factor for Liability Risk Costs**

	<b>Issue Traffic R/VC 1/</b>	<b>Other Relevant Factor</b>	<b>Maximum R/VC 2/</b>
Glendale	291%	1.13	279%
Albuquerque	306%	1.16	287%

1/ Current R/VC, as of 4th Quarter 2011.

2/ Based on multiplying the 247% maximum R/VC for BNSF's Alternative Comparison Group from the 2009 Carload Waybill Sample by the corresponding other relevant factor.

As explained above, the STB should apply the Historical PTC Adjustment and the Liability Risk Adjustment only if the Current Rate Adjustment is not applied. The following table summarizes the results of applying the PTC Investment Adjustment and Liability Risk Adjustment in the alternative case.

**Table 19  
Maximum R/VC Ratios for Alternative Comparison Group  
Including Other Relevant Factors  
for PTC Investments and Liability Risk Costs<sup>148</sup>**

<b>Destination</b>	<b>Issue Traffic R/VC 1/</b>	<b>Historical PTC Factor</b>		<b>Insurance Risk Factor</b>	<b>Maximum R/VC 2/</b>	
		<b>2010 Investment</b>	<b>2010+2011 Investment</b>		<b>2011</b>	<b>2012</b>
Glendale	291%	1.19	1.38	1.13	331%	384%
Albuquerque	306%	1.25	1.49	1.16	358%	427%

1/ Current R/VC, as of 4th Quarter 2011.

2/ Based on multiplying the 247% maximum R/VC for BNSF's Alternative Comparison Group from the 2009 Carload Waybill Sample by the corresponding other relevant factor.

In sum, the fourth quarter 2011 R/VCs for the issue traffic movements – 291% for the Glendale Movement and 306% for the Albuquerque Movement – are lower than the R/VCs for the alternative comparison group when the Historical PTC and Liability Risk Adjustments are

<sup>148</sup> BNSF workpaper "PTC 330 and 335\_BNSF Opening.xlsx."

applied. Application of those adjustments to BNSF's alternative case demonstrates that the challenged rates for the issue traffic movements are reasonable.

#### **4. Future PTC Adjustment**

If the STB were to prescribe rates in this proceeding, the prescribed rates would be expressed in terms of R/VC ratios and the R/VC ratios would be translated into specific prescribed rates using the most recent URCS available. Because annual URCS are published nearly a full year after the end of the year to which they apply, PTC expenditures for the most recent past year will necessarily not be reflected in the prescribed R/VC ratio. As described above, the PTC adjustments developed based on BNSF's actual PTC expenditures to date are applicable to establishing the maximum rates for 2011 and 2012, respectively. In the event an STB prescription has not reached the one-million dollar Three Benchmark relief limit by the end of 2012, the 2013 rates would be based on an R/VC calculated using 2011 URCS. But the 2011 URCS would not reflect actual PTC expenditures through the end of 2012. Just as BNSF is entitled to have its current maximum reasonable rates reflect PTC expenditures that have already been made, BNSF would be entitled to have maximum reasonable rates during any future prescription period reflect new PTC expenditures that had been made prior to that future prescription period. Use of the most recent available URCS to set the future prescribed rate will not adequately reflect those future PTC expenditures. Therefore, a mechanism is needed to permit annual adjustment of the prescribed R/VC ratio so that it will reflect the actual PTC expenditures from the most recent year.

The proposed annual adjustment would be made in the same manner as the Historical PTC Adjustment described above for reflecting 2010 and 2011 PTC costs. The rate prescription for 2013 would be based on 2011 URCS and actual PTC expenditures up through the end of

2012. Prescription for the remainder of the five-year prescription period, if still warranted, would follow the same pattern as set forth in the following table.

**Table 20  
Prescription Source Data Timeline Summary**

Prescription Year	URCS Year	Actual PTC Expenditures Through Year
2011	2010	2010
2012	2010	2011
2013	2011	2012
2014	2012	2013
2015	2013	2014

Two steps would be required for each subsequent year. Using 2013 as an example, the first step is to convert PTC expenditures through 2012 to URCS-type variable costs following the first three steps of the PTC Adjustment described above. The second step, again to avoid any double count of PTC costs from prior years, is to quantify and deduct the PTC costs allocated to the issue traffic shipments by the standard 2011 URCS. The procedure for doing so is the fourth step for the PTC Adjustment described above. The PTC Adjustment is then calculated as the ratio of total variable costs include net PTC variable costs divided by URCS variable cost.<sup>149</sup>

The PTC Adjustment Mechanism would only be required until such time as the Board modifies URCS so that PTC costs are appropriately assigned to TIH traffic. Once the Board modifies URCS, it is likely that the mechanism to adjust prescribed rates on an annual basis would no longer be necessary.

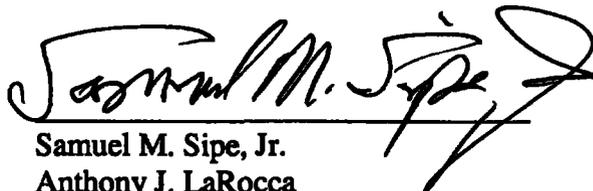
<sup>149</sup> BNSF workpaper "PTC 330 and 335\_BNSF Opening.xlsx" includes an illustrative calculation for 2012 PTC expenditures of \$300 million, based on BNSF's stated capital spending plan. The 2012 investments translate to an additional \$0.73 per TIH loaded car-mile in variable costs, above the amounts accounted for by the Actual PTC adjustment that incorporated spending through year-end 2011.

**VI. CONCLUSION**

For the foregoing reasons, the Board should find that the issue traffic rates do not exceed maximum reasonable rates.

Respectfully submitted,

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February 13, 2012

ATTORNEYS FOR BNSF RAILWAY CO.

**Certificate of Service**

I hereby certify that on this 13th day of February, 2012, I caused to be served a copy of the Highly Confidential, Confidential and Public versions of Opening Evidence of BNSF Railway Company on the following by hand delivery:

Thomas W. Wilcox  
GKG Law, PC  
1054 31st Street NW, Suite 200  
Washington, DC 20007

*Counsel for Canexus Chemicals Canada L.P.*

A handwritten signature in cursive script that reads "Deanna Cook". The signature is written in black ink and is positioned above a horizontal line.

Deanna P. Cook

# **EXHIBIT 1**

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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**CANEXUS CHEMICALS** )  
**CANADA L.P.** )  
 )  
 **Complainant,** )  
 )  
 **v.** )  
 )  
**BNSF RAILWAY COMPANY** )  
 )  
 **Defendant.** )

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**STB Docket No. 42132**

**VERIFIED STATEMENT OF  
DAVID L. GARIN**

My name is David L. Garin. I am Group Vice President, Marketing – Industrial Products of BNSF Railway Company (“BNSF”). I have been at BNSF and its predecessor since 1983 and have been in my current position since 1999. In addition to my current position, I have held a variety of leadership positions at BNSF in the areas of Audit, Corporate Accounting, Financial Reporting, and Strategic Planning.

In my current position, I am responsible for BNSF’s sales, marketing, customer service and economic development for transportation of commodities in BNSF’s Industrial Products (“IP”) group. The commodities covered by BNSF’s Industrial Products group range from chemicals and petroleum products to lumber, minerals, metals, food and beverage products, machinery and household goods. The products I am responsible for marketing include chlorine and other Toxic by Inhalation Hazard (“TIH”) as well as Poison by Inhalation Hazard (“PIH”) materials.

I am submitting this verified statement to explain to the Board why the IP group made a fundamental change to our pricing of chlorine and other TIH commodities effective March 16, 2011. On June 15, 2011, I submitted a verified statement in another proceeding (Docket No. FD-35524) filed by Canexus regarding the interchange location for certain long-haul interline movements of Canexus's chlorine traffic. In that June 2011 verified statement, I discussed some of BNSF's recent changes to BNSF's approach to pricing TIH/PIH commodities.

The IP group markets the transportation of more than 20 TIH products, including chlorine. Chlorine movements make-up approximately 50% of the volume of TIH traffic marketed by our group. My group is not responsible for the marketing of Anhydrous Ammonia, another TIH product. BNSF considers Anhydrous Ammonia, which is used as a fertilizer, to be an agricultural commodity rather than an Industrial Products commodity so transportation of Anhydrous Ammonia historically has been marketed by (and continues to be marketed by) BNSF's Agricultural Products group.

My group made a comprehensive overhaul of our pricing of the transportation of chlorine and other TIH products that resulted in a substantial increase in the rates we assessed for such transportation, particularly for long-haul movements, effective March 16, 2011. Several factors led our group to make this fundamental change to our pricing. Among other things, it became apparent that we had been charging below market rates for the transportation of TIH materials, especially for long-haul movements. This became apparent in part from our receipt of shipper requests for transportation of TIH materials over very long, circuitous routes under our previous group-to-group pricing structure. For example, one BNSF chlorine rate was so below market that it resulted in chlorine shippers tendering traffic to BNSF even though under that rate the chlorine shipments moved more than 1,500 miles in a highly circuitous routing that went through

five High Threat Urban Areas ("HTUA") as defined by the Transportation Safety Administration and even though the chlorine shippers had multiple other rail options under which the chlorine shipments would have moved a much shorter distance (between 500 and 1,000 miles) and through only two HTUAs.

As I explained in my previous June 15, 2011 verified statement in FD 35524, our pre-March 2011 group-to-group pricing structure facilitated these inappropriate routings. Under group-to-group pricing, BNSF would provide service for any shipper to destinations or interchange locations within broad geographic regions, rather than to particular freight stations. The specific destination or interchange location within the area was not specified in the pricing authority. We realized that connecting carriers could take advantage of these group-to-group rates, which were not limited to particular stations or types of service, by arranging with a shipper to specify a group location as an interchange and obtaining the short haul on TIH movements.

In our March 2011 change to BNSF's pricing structure for TIH commodities, the IP group attempted to eliminate these requests for circuitous routing and to bring our below market rates into line with market rates. We did this by changing from the group-to-group pricing structure to a point-to-point pricing structure and by establishing generally higher rates for movements between specified freight stations. Since market indicators were that the longer-haul TIH movements had been priced farther below market than the short-haul movements, we adopted proportionally higher rate increases for long-haul chlorine and other TIH movements than for short-haul movements.

We also decided that it was appropriate to increase our rates for transporting chlorine and other TIH materials due to the increasing operational complexity and associated costs resulting

from recent legislation and regulations that required special handling of TIH/PIH movements. Many of the new and burdensome operating requirements have a particularly large impact on long-haul movements. The new regulations included a rule providing that TIH commodities could only be interchanged at attended interchange locations where crews from both interline railroads are present, a recent regulation that set a 50 mph speed limit for loaded TIH cars, and routing protocols overseen by the Federal Railroad Administration and the Pipeline and Hazardous Materials Safety Administration.

Another factor underlying our increase in prices for transporting chlorine and other TIH materials in March 2011 was our realization that a high percentage of the cost of BNSF's very expensive liability insurance was attributable to BNSF's handling of dangerous TIH movements even though such movements constitute only a very small percentage of our overall traffic. As a general matter, our liability exposure increases with length of haul, thus justifying a somewhat larger increase in rates for long-haul movements. There is no Price Anderson type protection covering the transportation of TIH commodities.

I am aware of some shippers' claims that railroads are increasing rates on TIH commodities in an effort to discourage shippers from seeking to transport those commodities. BNSF's price change on chlorine and other TIH traffic in March 2011 was not intended to "demarket" this traffic. Rather we increased our rates for these TIH products for the business reasons specified above. The fact that considerable TIH traffic has continued to move on BNSF after the March 2011 price increase indicates that our March 2011 tariff adjustments did not foreclose the movement of this traffic.

**VERIFICATION**

I, David L. Garin, declare under penalty of perjury, that the foregoing statement is true and correct and that I am qualified and authorized to file this statement.

A handwritten signature in black ink, appearing to read "David L. Garin". The signature is written in a cursive style with a large initial "D".

Executed: December 14, 2011

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David L. Garin

# **EXHIBIT 2**

**BNSF RAILWAY COMPANY  
CARLOAD**

**PRICE AUTHORITY: BNSF 90096  
IMPLEMENTING AGREEMENT: 5000  
CUSTOMER COPY**

**EFFECTIVE: MAR 16, 2011  
EXPIRATION: DEC 31, 2011**

**AMENDMENT: 20**

**RATE ITEM PRICE LIST**

**GENERAL RULES**

- Freight charges must be prepaid, or freight charges must be collect.
- Price applies in United States funds.
- No mileage allowance will be paid. Customer warrants that its interest in the equipment used under rates in this price list is sufficient to permit it to waive full payment of mileage allowances, customer and railroad agree that railroad will not be liable for mileage allowances in excess of the above obligation. In the event that a party other than customer submits a claim to railroad for mileage allowance payments in excess of railroad's obligation under this price list, customer shall at railroad's option either (1) release, defend and indemnify railroad from said claim including attorney's fees and cost of litigation or (2) reimburse railroad for excess mileage allowances paid by railroad within (30) days of notice by railroad.
- Origin and Destination groups used in this Price Authority are defined in BNSF Geography Group Book, BNSF-5. This Book is located on the BNSF website at [bnsf.com](http://bnsf.com).
- BILLING Each shipment made under this Price Authority shall be evidenced by a standard uniform straight bill of lading, order notify bill of lading (bill of lading) or shipping order. At the time shipment is tendered the original and all copies of the bill of lading or shipping order or other shipping orders shall contain reference to Price List BNSF 90096. PAYMENT PLAN Payment of all charges shall be made according to Surface Transportation Board or Canadian Credit Regulations and subsequent amendments. If payments are not made within the prescribed credit period, or if customer does not have credit with BNSF, payment may be required in advance of service. Rates and charges in this price list are payable to railroad in United States funds LOSS AND DAMAGE Standard common carrier liability pursuant to 49 U.S.C 11706 will apply on shipments made under this price list. Accordingly, railroad shall not be liable for any loss, damage or injury caused by an act of God, the public enemy, act of the customer, a public authority, or inherent vice or nature of the goods. Railroad shall not be liable for any loss, damage or injury due to improper loading. Pursuant to 49 U.S.C. 11706, all claims against railroad must be brought within nine (9) months and all civil actions against railroad must be brought within two (2) years.
- EQUIPMENT HANDLING HAZARDOUS MATERIAL. Equipment used under this price list shall be privately owned or leased cars as described in Tariff and ICC RER 6411-Series and tendered to railroad in accordance with all applicable hazardous material regulations of the United States Department of Transportation (DOT), as published in 49 CFR. This price list does not commit railroad to accept privately owned or leased equipment that does not have OT-5 approval from railroad. Customer shall indemnify and hold harmless railroad for loss, damage or injury due to any defects in privately owned or leased equipment, improper loading practices, or failure to properly close, secure and tender loaded or empty equipment, as prescribed by DOT regulations. Customer shall indemnify and hold harmless railroad for loss, damage or injury due to presence of any trace chemicals or contaminants in the commodity which are not described in the commodity's proper shipping name, as provided in Column of Section 172.01 of United States Department of Transportation. Customer warrants that its interest in the equipment used under the price list is sufficient to permit it to waive full payment of mileage allowances. Customer and railroad agree that railroad will not be liable for mileage allowances. In the event that a party other than customer submits a claim to railroad for reimbursement allowance under this price list, customer shall, at railroad's option either (1) release, defend and indemnify railroad from said claim including attorney's fees and cost of litigation, or (2) reimburse railroad for excess mileage allowances paid by railroad within thirty (30) days of notice by railroad.
- FORCE MAJEURE In the event any party cannot perform under this price list due to or as a result of the following causes: Acts of God, including, but not limited to flood, storm, earthquake, hurricane, tornado, or other severe weather or climatic conditions; acts of public enemy, war, blockade, insurrection, derailment, vandalism, sabotage, fire, accident, wreck, washout or explosion; labor strike or interference, lockout or labor dispute, shortage of diesel fuel, embargo or AAR service order or governmental law, orders or regulation, or breakage of machinery; and/or any like causes beyond the reasonable control of customer or railroad, the parties' obligations under this tariff shall be suspended to the extent made necessary by the Force Majeure event at the affected origin(s) and/or destination(s) during any such disability period insofar as it applies to the affected location(s). Suspension shall not result in extension of the term of this price list. The party claiming the Force Majeure shall take all reasonable steps to remove the Force Majeure event, and shall promptly notify the other party(ies) within a period of five (5) days, excluding weekends and holidays when it learns of the existence of a Force Majeure condition and will similarly notify the other party(ies) within a period of five (5) days, excluding weekends and holidays, when the Force Majeure is terminated.
- GOVERNING PROVISIONS Except as otherwise provided for in this price list, shipments moving under this price list will be governed by the tariffs, exempt circulars, rate memorandums, rules and regulations which would apply if this price list were not in effect, except that origin and destination intermediate application rules will not apply. If, for any reason, any rule, regulation, or provision of any tariff, exempt circular or rate memorandum referenced under this price list is canceled or becomes inapplicable, the last published provision that would have been applied will govern. In the event of conflict between the above referenced rules, regulations, etc. which are herein incorporated by general reference, and this price list, this price list shall govern. Railroad's obligation to provide service under this price list shall be no greater than it would be as a common carrier. Services or other matters not specifically addressed in this price list, including but not limited to, loss and limitations, shall continue to be governed by rules, regulations, tariffs, and statutory provisions, as amended from time to time, which would apply if it were not for this price list, and which are incorporated herein by reference. This price list shall not relieve railroad of its common carrier obligations as set forth in the uniform straight bill of lading terms and conditions. Said terms and conditions shall govern all shipments made hereunder and are incorporated herein by reference and made a part hereof as if fully herein set forth; provided, however, that in the event of any inconsistency between said terms and conditions and any other provisions of this price list, the provisions of this price list shall govern. Transit of any kind, inspection, or stopping-in-transit for completion of loading or partial unloading, does not apply. Diversion and reconsignment privileges do not apply in connection with shipments moving under the provisions of this tariff. Provisions of the applicable demurrage book will govern.

**BNSF RAILWAY COMPANY  
CARLOAD**

**PRICE AUTHORITY: BNSF 90096  
IMPLEMENTING AGREEMENT: 5000  
CUSTOMER COPY**

**EFFECTIVE: MAY 10, 2011  
EXPIRATION: DEC 31, 2011**

**AMENDMENT: 20**

**RATE ITEM PRICE LIST**

**-INDEMNIFICATION** Upon delivery to and acceptance by customer of the commodity transported under this price list ("Commodity"), railroad and railroad's affiliated companies, partners, successors, assigns, legal representatives, officers, directors, shareholders, employees, and agents (collectively "Indemnitees") shall be relieved from any further obligation with regard to the disposition of the Commodity. Customer hereby agrees to release, defend, indemnify, and hold railroad harmless for, from and against any and all losses, damages (including special, incidental, and consequential damages), suits, liabilities, fines, penalties, costs, causes of action, demands, judgments and expenses (including without limitation, court costs, attorneys' fees, and costs of investigation, removal and remediation and government oversight costs) environmental or otherwise (collectively "Liabilities") of any nature, kind or description of any person or entity directly or indirectly arising out of, resulting from or related to (in whole or in part) the disposition of the Commodity, or the work performed by customer or a licensed EPA cleanup-disposal operator designated by customer under this price list, including but not limited to, damages caused by sudden pollution. Customer shall, at the sole option of railroad, defend the indemnitees at customer's sole expense in any claim involving the same. The foregoing indemnification and hold harmless provision shall not apply to any Liabilities wholly caused by the sole negligence of any Indemnitee.

**-Each railroad party to this price list** represents and warrants that it is and will maintain the ability to be financially responsible for general liability (including contractual liability) insurance of not less than ten million dollars combined single incident limit for bodily injury and property damage. Customer agrees to keep in force general liability (including contractual liability) insurance of not less than ten million dollars combined single incident limit for bodily injury and property damage. Certification of insurance will be furnished by customer to railroad(s) party to this tariff.

**-JOINT LIABILITY** Each party shall indemnify ("Indemnifying Party") and hold harmless the other party for all judgments, awards, claims, demands, and expenses, including without limitation, attorneys' fees, environmental damage, hazardous materials damage, fines or penalties, for injury or death to all persons, including Railroad's and Customer's officers and employees, and for loss and damage to property belonging to any person whomsoever ("Loss or Damage"), arising during the transportation of the commodity under this tariff, but only to the extent the Indemnifying Party's negligence causes or contributes to any such Loss or Damage. In the event the proximate cause of such Loss or Damage cannot be determined, any liability for such Loss or Damage shall be shared equally between Railroad and Customer.

**-LINE ABANDONMENT** The terms of this price list in no way obligates the railroad to continue ownership, maintenance (including weight standards) or operations of any rail lines. Railroad will not be liable for any increased transportation costs or consequential damages that may result from such discontinuation. **INSPECTION AND CLEANING OF EQUIPMENT** If equipment owned or leased by railroad is used by customer or its designated agent to transport commodity named under this price list, customer shall assume and be responsible for cleaning and decontaminating the equipment to the satisfaction of railroad, before said equipment is returned to railroad. Customer shall assume and be responsible for visually inspecting and removing any residual waste from the equipment and insuring that sludge, or other residue contaminants resulting from the cleaning of the rail cars shall be properly disposed of in full accordance with applicable requirements of federal, state and local laws and regulations. If customer fails to decontaminate railroad furnished equipment used to transport commodity named under this price list to the reasonable satisfaction of railroad, railroad will have the right to have said equipment cleaned and all charges for cleaning will be billed directly to customer.

**-LOADING AND UNLOADING.** Customer shall have the sole responsibility, at its sole expense, for properly packaging, labeling, marking, blocking, bracing, placarding, loading and unloading the commodity into or out of equipment to be transported pursuant to this Agreement. Customer shall comply with the loading rules of the Association of American Railroads and applicable federal, state and local loading rules or other loading rules as modified to meet the needs of customer subject to approval of railroad's Risk Management Division as well as applicable federal, state and local requirements regarding the handling of the commodity. Customer shall further be responsible for insuring that the load limits of any equipment used for transporting the commodity under this price list are not exceeded. In the event it is discovered that equipment has been overloaded, railroad may set out such equipment at a location convenient to railroad and shall notify customer by telephone, confirmed in writing, of the location of the overloaded equipment. Railroad may then either (1) contact customer in which event customer shall have twenty-four (24) hours to remove excess weight; or (2) move the overloaded equipment to a location suitable for removal of the excess weight that meets with all federal, state and local requirements. In any event, customer shall be responsible for performing and bearing all costs for movement of the overloaded railcar and removal of excess weight. Railroad will move the affected equipment to destination in such manner and time as is practicable after railroad receives notice from customer that excess weight has been removed. Customer will be responsible to advise receiver when customer is not the receiver for cleaning and receiver for inspecting all railroad equipment after unloading the commodity therefrom. Customer shall be responsible to advise receiver when customer is not the receiver for cleaning and decontaminating railroad equipment before its return to the railroad, as well as any adjacent or vicinity property at the origin loading location, destination unloading location and/or any location enroute where such waste has been loaded and/or unloaded in accordance with applicable requirements of federal, state and local laws and regulations including, without limitation, DOT regulations of 49 CFR 174.57. Customer or receiver shall have the right to arrange for such responsibilities to be carried out by third parties; PROVIDED, HOWEVER, that customer shall remain obligated to railroad under its promises in this price list in such cases. Notwithstanding, the provisions of the following INDEMNIFICATION paragraph, customer shall indemnify and hold harmless railroad or the actual owners of equipment used under this price list from and against any and all liability for loss damage (including but not limited to loss or damage to fees arising therefrom, or special and consequential damages) resulting from future use of equipment to the extent such loss, damage, personal, injury or death resulted from customer's failure or negligence in inspecting and/or decontaminating equipment prior to release to railroad.

**-NOTICE** Any notice given under this price list shall be effective when received. Notices, except as otherwise provided herein, shall be delivered to the party(ies) entitled to receive the same by personal delivery, by Registered or Certified Mail, Return Receipt Requested, or by an electronic means which can produce a written copy provided that acknowledgment of receipt of the electronic communication is obtained. Notices shall be addressed to the appropriate party(ies) as shown below. Any notices pertaining to a Force Majeure or to matters of an emergency or operating nature may be given by a reasonable means. Any notice given verbally shall be confirmed in writing by First Class Mail as soon as practicable, if requested by party(ies) receiving such notice. Name of Company

**BNSF RAILWAY COMPANY  
CARLOAD**

**PRICE AUTHORITY: BNSF 90096  
IMPLEMENTING AGREEMENT: 5000  
CUSTOMER COPY**

**EFFECTIVE: MAR 16, 2011  
EXPIRATION: DEC 31, 2011  
AMENDMENT: 20**

**RATE ITEM PRICE LIST**

**THE BURLINGTON NORTHERN AND SANTA RAILWAYCOMPANY Atrn: Name & Title Atrn: Waste Marketing, Third Floor Address P.O. Box 961065 City, State and Zip Code Ft. Worth, TX 76161-0065**

- Price is subject to a Fuel Surcharge. A Mileage Based Fuel Surcharge will be applied to the rates or charges in this price authority for the shipment, as provided for in Item 3376-Series, Section B (\$2.50 Strike Price), of BNSF Rules Book 6100-Series. This amount will be added to the freight bill.
- The Price document number, correct address and patron code must be shown on the bill of lading to insure accurate billing. Payments of freight charges on interline through rates within this price authority are as follows: Freight charges must be prepaid when BNSF is the originating carrier. Freight charges must be collect when BNSF is the terminating carrier.
- Rates in this price list take precedence in the following order: 1st - Point to Point, 2nd - Point to Group, or Group to Point, and 3rd - Mileage Scale.
- Transportation under this agreement is subject to BNSF Rules Book 6100-Series. A copy of this Rules Book may be obtained via the internet at: www.BNSF.com. If Customer does not have access to the internet, Customer should contact Price Management at (817) 593-1134 and a copy of BNSF Rules Book 6100 will be mailed to Customer.
- Price is subject to UFC 6000.
- Rate Publication Insert: As a result of Transportation Security Administration (TSA) rail security regulations on Rail Security Sensitive Materials (RSSM), this price authority will not apply when shipments are routed via Interchange Junctions covered by Note 125 or to or from Stations covered by Note 126 of the Official Railroad Station List (OPSL 6000 series). RSSM are defined by the TSA in the Code of Federal Regulations at 49 C.F.R. 1580. RSSM are designated by the TSA and include TIH/PIH commodities and more than 5,000 lbs of either division 1.1, 1.2, or 1.3 Explosive materials or Class 7 radioactive materials. Customers interested in shipping RSSM via the Interchange Junctions and/or Stations covered by Notes 125 and 126 of the Official Railroad Station List (OPSL 6000 series) should contact their BNSF Marketing representative.
- Switching charges at Origin and Destination will be absorbed up to \$300.00. No more than \$300.00 per car will be absorbed. Any additional amount will be assessed.
- For car rates displayed in this Price Authority: For shipments moving on per car based rates in this Price Authority, BNSF will not be required to weigh shipments. Requests for weighing a car will be subject to the rules, regulations and charges found in BNSF Weighing Book BNSF-9300-Series. For weight based rates displayed in this Price Authority: For shipments moving on weight based rates in this Price Authority, shipper must have a Weight Agreement and will be responsible for supplying BNSF origin weights at the time of billing. If you are unsure if you have a Weight Agreement with BNSF, please contact [auxpricing@bnst.com](mailto:auxpricing@bnst.com). A weighing charge will apply whenever BNSF is requested to weigh a car. Except as otherwise provided herein, the rules, regulations and charges of BNSF Weighing Book, BNSF-9300 Series will apply, except item 500, paragraph C, 1, will not apply.
- Prices in this Rate Item Price List do not alternate with other Rate Item Price Lists.

**COMMODITY DEFINITIONS**

STCC	DESCRIPTION
	COMMODITY GROUP - BNSF 90096 COMM GRP (REN) (REN)
2812815	CHLORINE GAS, LIQUEFIED
2813914	METHYL BROMIDE
2813920	HYDROGEN BROMIDE, ANHYDROUS, LIQUEFIED
2813922	HYDROGEN CHLORIDE, ANHYDROUS, LIQUEFIED
2813932	CARBON MONOXIDE
2813946	HYDROGEN SULPHIDE
2813950	METHYL MERCAPTAN GAS
2813964	TRIFLUOROCHLOROETHYLENE GAS (MONOCHLOROTRIFLUORO-ETHYLENE GAS)
2813975	NITRIC OXIDE
2815151	ISOCYANATE
2815207	N-BUTYL ISOCYANATE
2815210	CHLOROACETYL CHLORIDE

EFFECTIVE: MAR 16, 2011  
EXPIRATION: DEC 31, 2011  
AMENDMENT: 20

PRICE AUTHORITY: BNSF 90096  
IMPLEMENTING AGREEMENT: 5000  
CUSTOMER COPY

BNSF RAILWAY COMPANY  
CARLOAD

RATE ITEM PRICE LIST

STCC	DESCRIPTION
2818008	BROMINE CHLORIDE
2818009	ALLYLAMINE
2818023	DIMETHYLHYDRAZINE
2818037	ETHYL CHLOROFORMATE
2818057	METHYL VINYL KETONE
2818063	METHYL ISOTHIOCYANATE
2818101	ACROLEIN (ACRALDEHYDE, ACRYLIC OR ALLYL ALDEHYDE, OR PROPENOL)
2818104	CHLOROACETONE (CHLORINATED ACETONE) (CHLOROACETONE, MONOCHLOROACETONE OR 1CHLORO-2--PROPANONE)
2818123	CROTONALDEHYDE
2818131	DIMETHYLSULFATE
2818138	ETHYLENE CHLOROXYDRIN
2818168	BROMOACETONE
2818184	ETHYLENE DIBROMIDE (BROMOETHENE, BROMO- ETHYLENE, DIBROMOETHANE, ETHYLENE BROMIDE OR VINYL BROMIDE)
2818239	ETHYLENE OXIDE
2818288	METHYL ISOCYANATE
2818331	HEXACHLOROCYCLOPENTADIENE
2818410	ALLYL ALCOHOL (AA, PROPENYL OR 2-PROPEN- 1-OL) OR METHALLYL ALCOHOL NOT FIT FOR HUMAN CONSUMPTION
2818454	METHYL CHLOROFORMATE NOT FIT FOR HUMAN CONSUMPTION
2818820	CARBONYL CHLORIDE (PHOSGENE)
2818830	CHLOROPICRIN
2818890	GASES, COMPRESSED, NEC, POISON, COMPRESSED GASES, NEC, POISON, HAZARD CLASS 2.3 POISON GAS
2818915	ACETONE CYANOXYDRIN
2818920	PHENYL MERCAPTANS
2819216	NITRIC ACID, RED FUMING (IRFNA), IN BULK OR CONTAINERS
2819325	SULPHUR TRIOXIDE, STABILIZED
2819340	FUMING SULFURIC ACID 30% OR GREATER IN STRENGTH
2819415	PHOSPHORUS CHLORIDE OR TRICHLORIDE
2819416	PHOSPHORUS OXYCHLORIDE ORPHOSPHORYL CHLORIDE
2819422	CHLOROSULFONIC ACID
2819434	HYDROCYANIC ACID

**PRICE AUTHORITY: BNSF 90096**  
**IMPLEMENTING AGREEMENT: 5000**  
**CUSTOMER COPY**  
**AMENDMENT: 20**

**BNSF RAILWAY COMPANY**  
**CARLOAD**

**RATE ITEM PRICE LIST**

STCC	DESCRIPTION
	2819484 HYDROGEN FLUORIDE ANHYDROUS
	2819535 NICKEL SALTS, NEC
	2819919 BROMINE
	2819961 SULFURYL CHLORIDE
	2819962 SULPHUR CHLORIDE
	2819971 TITANIUM TETRACHLORIDE
	2819972 BORON TRIFLUORIDE
	2819997 SULPHUR DIOXIDE (SULPHUROUS ACID ANHYDRIDE)
	2879934 INSECTICIDES, AGRICULTURAL, NEC, LIQUID
	2879936 INSECTICIDES, AGRICULTURAL, NEC, OTHER THAN LIQUID
	2879951 INSECTICIDES, NITROTRI- CHLOROMETHANE (CHLORO- PICRIN, NITROCHLOROFORM OR TRICHLORONITROMETHANE INSECTICIDES), OR MIXTURES OF NITROTRI- CHLOROMET
	2899799 CHEMICALS, NEC TOXIC INHALATION HAZARD
	2912130 COAL GAS
	4821019 WASTE ALLYL ALCOHOL
	4821029 WASTE, TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S.
	4821722 WASTE HEXACHLOROCYCLO- PENTADIENE
	4890030 WASTE SULFURIC ACID, FUMING

**COLUMN HEADING DEFINITIONS**

COLUMN LABEL	DESCRIPTION
COM	COMMODITY
WGT	WEIGHT CONDITION
EQP	EQUIPMENT
DTE	PRICE EFFECTIVE/EXPIRATION DATE
SHP	SHIPPING CONDITION
NOTATION	DESCRIPTION
+	DESIGNATES SWITCHING LIMITS

**COLUMN NOTATIONS**

EFFECTIVE: MAR 16, 2011  
EXPIRATION: DEC 31, 2011

AMENDMENT: 20

PRICE AUTHORITY: BNSF 90096  
IMPLEMENTING AGREEMENT: 5000  
CUSTOMER COPY

BNSF RAILWAY COMPANY  
CARLOAD

RATE ITEM PRICE LIST

NOTATION	DESCRIPTION
CU	PER CUBIC FOOT UNIT
GT	PER GROSS TON
LB	PER POUND
PA	PER CONTAINER
PC	PER CAR
PF	PER CUBIC FOOT
PH	PER HUNDRED POUNDS
PK	PER CORD
PM	PER MILE
PT	PER NET TON
PV	PER VEHICLE
PW	PERCENTAGE OF CHARGES
TN	PER TRAIN
TR	PER TRAILER

BNSF RAILWAY COMPANY  
CARLOAD

PRICE AUTHORITY: BNSF 90096  
IMPLEMENTING AGREEMENT: 5000  
CUSTOMER COPY  
AMENDMENT: 20

RATE ITEM PRICE LIST

RATE LEVEL CONDITIONS

\*\*\*\*\* THIS SECTION APPLIES TO INDIVIDUAL RATES \*\*\*\*\*

Matrix5

COMMODITY DEFINITIONS

CODE	STCC	DESCRIPTION
C01		COMMODITY GROUP - BNSF 90096 COMM GRP (REN)
		2812815 CHLORINE GAS, LIQUEFIED
		2813914 METHYL BROMIDE
		2813920 HYDROGEN BROMIDE, ANHYDROUS, LIQUEFIED
		2813922 HYDROGEN CHLORIDE, ANHYDROUS, LIQUEFIED
		2813932 CARBON MONOXIDE
		2813946 HYDROGEN SULPHIDE
		2813950 METHYL MERCAPTAN GAS
		2813964 TRIFLUOROCHLOROETHYLENE GAS (MONOCHLOROTRIFLUORO-ETHYLENE GAS)
		2813975 NITRIC OXIDE
		2815151 ISOCYANATE
		2815207 N-BUTYL ISOCYANATE
		2815210 CHLOROACETYL CHLORIDE
		2818008 BROMINE CHLORIDE
		2818009 ALLYLAMINE
		2818023 DIMETHYLHYDRAZINE
		2818037 ETHYL CHLOROFORMATE
		2818057 METHYL VINYL KETONE
		2818063 METHYL ISOTHIOCYANATE
		2818101 ACROLEIN (ACRALDEHYDE, ACRYLIC OR ALLYL ALDEHYDE, OR PROPENOL)
		2818104 CHLOROACETONE (CHLORINATED ACETONE) (CHLOROACETONE, MONOCHLOROACETONE OR 1CHLORO-2-PROPANONE)
		2818123 CROTONALDEHYDE
		2818131 DIMETHYLSULFATE
		2818138 ETHYLENE CHLOROXYDRIN

BNSF RAILWAY COMPANY  
CARLOAD

PRICE AUTHORITY: BNSF 90096  
IMPLEMENTING AGREEMENT: 5000  
CUSTOMER COPY

EFFECTIVE: MAR 16, 2011  
EXPIRATION: DEC 31, 2011  
AMENDMENT: 20

RATE ITEM PRICE LIST

CODE	STCC	DESCRIPTION
		2818168 BROMOACETONE
		2818184 ETHYLENE DIBROMIDE (BROMOETHENE, BROMO- ETHYLENE, DIBROMOETHANE, ETHYLENE BROMIDE OR VINYL BROMIDE)
		2818239 ETHYLENE OXIDE
		2818288 METHYL ISOCYANATE
		2818331 HEXACHLOROCYCLOPENTADIENE
		2818410 ALLYL ALCOHOL (AA, PROPENYL OR 2-PROPEN- 1-OL) OR METHALLYL ALCOHOL NOT FIT FOR HUMAN CONSUMPTION
		2818454 METHYL CHLOROFORMATE NOT FIT FOR HUMAN CONSUMPTION
		2818820 CARBONYL CHLORIDE (PHOSGENE)
		2818830 CHLOROPICRIN
		2818890 GASES, COMPRESSED, NEG, POISON, COMPRESSED GASES, NEG, POISON, HAZARD CLASS 2.3 POISON GAS
		2818915 ACETONE CYANOHYDRIN
		2818920 PHENYL MERCAPTANS
		2819216 NITRIC ACID, RED FUMING (IRFNA), IN BULK OR CONTAINERS
		2819325 SULPHUR TRIOXIDE, STABILIZED
		2819340 FUMING SULFURIC ACID 30% OR GREATER IN STRENGTH
		2819415 PHOSPHORUS CHLORIDE OR TRICHLORIDE
		2819416 PHOSPHORUS OXYCHLORIDE OR PHOSPHORYL CHLORIDE
		2819422 CHLOROSULFONIC ACID
		2819434 HYDROCYANIC ACID
		2819484 HYDROGEN FLUORIDE ANHYDROUS
		2819535 NICKEL SALTS, NEG
		2819919 BROMINE
		2819961 SULFURYL CHLORIDE
		2819962 SULPHUR CHLORIDE
		2819971 TITANIUM TETRACHLORIDE
		2819972 BORON TRIFLUORIDE
		2819997 SULPHUR DIOXIDE (SULPHUROUS ACID ANHYDRIDE)
		2879934 INSECTICIDES, AGRICULTURAL, NEG, LIQUID
		2879936 INSECTICIDES, AGRICULTURAL, NEG, OTHER THAN LIQUID

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RATE ITEM PRICE LIST

CODE	STCC	DESCRIPTION
		2879851 INSECTICIDES, NITROTRI- CHLOROMETHANE (CHLORO- PICRIN, NITROCHLOROFORM OR TRICHLORONITROMETHANE INSECTICIDES), OR MIXTURES OF NITROTRI- CHLOROMET
		2899789 CHEMICALS, NEC TOXIC INHALATION HAZARD
		2912130 COAL GAS
		4821019 WASTE ALLYL ALCOHOL
		4821029 WASTE, TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S.
		4821722 WASTE HEXACHLOROCYCLO- PENTADIENE
		4830030 WASTE SULFURIC ACID, FUMING

EQUIPMENT DESCRIPTIONS

CODE	DESCRIPTION
EQ+TANK,PR,ZR-	Price applies in Shipper Owned or Leased Tank Cars. Mileage payments will not apply.

SHIPMENT CONDITIONS

CODE	DESCRIPTION
S001	Price must not be used in combination with other prices for the portion of the shipment subsequent to specified destination when movement is by rail via UP. The waybill destination must equal the price destination.
S002	Price must not be used in combination with other prices for the portion of the shipment both prior to specified origin and subsequent to specified destination. The waybill origin/destination must equal the price origin/destination.
S003	Price may be used in combination with other prices for the portion of the shipment both prior to specified origin and subsequent to specified destination. If used in combination, separate freight bills will be issued for each price used according to the provisions of Railway Accounting Rule 11.

DATE DEFINITIONS

CODE	DESCRIPTION
D01	Effective Date: 03/16/2011 Expiration Date: 03/31/2011

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RATE ITEM PRICE LIST

Matrix5  
All prices in U.S. dollars

ORIGIN	DESTINATION	ROUTE	COM	WGT	EQ-TANK PRZR-1				DTE	SNP
MINNEAPOLIS/ST PAUL, MN +	LEWISTON, ID +	BNSF DIRECT	C01		17171 PC				D01	S00 1
COUTTS, AB	HUDSON, CO +	BNSF DIRECT	C01		8004 PC				D01	S00 1
COUTTS, AB	BORGER, TX	BNSF DIRECT	C01		13520 PC				D01	S00 1
COUTTS, AB	NEWPORT, WA	BNSF DIRECT	C01		3840 PC				D01	S00 1
KEMBROUGH, AL	HAMILTON, MS	BNSF DIRECT	C01		2532 PC				D01	S00 1
NEW WESTMINSTER, BC +	PITTSBURG, CA +	BNSF DIRECT	C01		9854 PC				D01	S00 2
NEW WESTMINSTER, BC +	KALAMA, WA	BNSF DIRECT	C01		2512 PC				D01	S00 2
NORTH VANCOUVER, BC	GLENDALE, AZ	BNSF DIRECT	C01		14945 PC					S00 1
NORTH VANCOUVER, BC	PHOENIX, AZ +	BNSF DIRECT	C01		14945 PC					S00 1
NORTH VANCOUVER, BC	PITTSBURG, CA +	BNSF DIRECT	C01		9854 PC					S00 1
NORTH VANCOUVER, BC	WOODSBRO, CA	BNSF DIRECT	C01		9508 PC					S00 1
NORTH VANCOUVER, BC	HUDSON, CO +	BNSF DIRECT	C01		15439 PC					S00 1
NORTH VANCOUVER, BC	CAMANACHE, IA	BNSF DIRECT	C01		18340 PC					S00 1
NORTH VANCOUVER, BC	LEWISTON, ID +	BNSF DIRECT	C01		4480 PC					S00 1
NORTH VANCOUVER, BC	CHICAGO, IL +	BNSF DIRECT	C01		17136 PC					S00 1
NORTH VANCOUVER, BC	NORTHTOWN, MN	BNSF DIRECT	C01		15027 PC					S00 1
NORTH VANCOUVER, BC	ST LOUIS, MO +	BNSF DIRECT	C01		21168 PC					S00 1
NORTH VANCOUVER, BC	ALBUQUERQUE, NM +	BNSF DIRECT	C01		17614 PC					S00 1
NORTH VANCOUVER, BC	TULSA PORT AUTHORITY, OK	BNSF DIRECT	C01		18386 PC					S00 1
NORTH VANCOUVER, BC	ALBANY, OR +	BNSF DIRECT	C01		3590 PC					S00 1
NORTH VANCOUVER, BC	LAKE YARD, OR +	BNSF DIRECT	C01		2244 PC				D01	S00 1

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ORIGIN	DESTINATION	ROUTE	COM	WGT	EQ-TANK PR, ZR-1					DTE	SHIP
NORTH VANCOUVER, BC	PORTLAND, OR +	BNSF DIRECT	C01		2244 PC					D01	S00 3
NORTH VANCOUVER, BC	MEMPHIS, TN +	BNSF DIRECT	C01		21425 PC						S00 1
NORTH VANCOUVER, BC	ALLIANCE, TX	BNSF DIRECT	C01		20510 PC						S00 1
NORTH VANCOUVER, BC	CLEBURNE, TX +	BNSF DIRECT	C01		19705 PC						S00 1
NORTH VANCOUVER, BC	DALLAS, TX +	BNSF DIRECT	C01		22077 PC						S00 1
NORTH VANCOUVER, BC	FT WORTH, TX +	BNSF DIRECT	C01		20910 PC						S00 1
NORTH VANCOUVER, BC	HOUSTON, TX +	BNSF DIRECT	C01		21286 PC						S00 1
NORTH VANCOUVER, BC	SWEETWATER, TX	BNSF DIRECT	C01		19939 PC						S00 1
NORTH VANCOUVER, BC	AYER, WA	BNSF DIRECT	C01		5882 PC						S00 1
NORTH VANCOUVER, BC	MARSHALL, WA	BNSF DIRECT	C01		4910 PC						S00 1
NORTH VANCOUVER, BC	TACOMA, WA +	BNSF DIRECT	C01		3006 PC						S00 1
NORTH VANCOUVER, BC	VANCOUVER, WA +	BNSF DIRECT	C01		4757 PC						S00 1
BARSTOW, CA +	LA VERNE, CA	BNSF DIRECT	C01		2811 PC					D01	S00 1
BARSTOW, CA +	ALBUQUERQUE, NM +	BNSF DIRECT	C01		6125 PC					D01	S00 1
COLTON, CA +	GLENDALE, AZ	BNSF DIRECT	C01		4937 PC					D01	S00 1
COLTON, CA +	LA VERNE, CA	BNSF DIRECT	C01		2688 PC					D01	S00 1
STOCKTON, CA +	WOODSBRO, CA	BNSF DIRECT	C01		1821 PC					D01	S00 1
CENTRALIA, IL	METROPOLIS, IL	BNSF DIRECT	C01		1633 PC					D01	S00 1
CHICAGO, IL +	LEWISTON, ID +	BNSF DIRECT	C01		16924 PC					D01	S00 1
CHICAGO, IL +	ARDMORE, OK +	BNSF DIRECT	C01		5138 PC					D01	S00 1
CHICAGO, IL +	GENE AUTRY, OK	BNSF DIRECT	C01		5138 PC					D01	S00 1
CHICAGO, IL +	TULSA PORT AUTHORITY, OK	BNSF DIRECT	C01		7250 PC					D01	S00 1
CHICAGO, IL +	PAGE, OR	BNSF DIRECT	C01		20725 PC					D01	S00 1

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RATE ITEM PRICE LIST

ORIGIN	DESTINATION	ROUTE	COM	WGT	EQ-TANK, PRZR-1				DTE	BHP
CHICAGO, IL +	AMARILLO, TX +	BNSF DIRECT	C01		10826 PC				D01	S00 1
CHICAGO, IL +	BORGER, TX	BNSF DIRECT	C01		10826 PC				D01	S00 1
CHICAGO, IL +	CLEBURNE, TX +	BNSF DIRECT	C01		11010 PC				D01	S00 1
CHICAGO, IL +	FT WORTH, TX +	BNSF DIRECT	C01		9327 PC				D01	S00 1
CHICAGO, IL +	HOUSTON, TX +	BNSF DIRECT	C01		10820 PC				D01	S00 1
CHICAGO, IL +	SWEETWATER, TX	BNSF DIRECT	C01		9528 PC				D01	S00 1
CHICAGO, IL +	AYER, WA	BNSF DIRECT	C01		16924 PC				D01	S00 1
CHICAGO, IL +	KALAMA, WA	BNSF DIRECT	C01		19169 PC				D01	S00 1
CHICAGO, IL +	TACOMA, WA +	BNSF DIRECT	C01		17719 PC				D01	S00 1
CHICAGO, IL +	VANCOUVER, WA +	BNSF DIRECT	C01		15089 PC				D01	S00 1
EAST ST LOUIS, IL +	ALLIANCE, TX	BNSF DIRECT	C01		6025 PC				D01	S00 1
EAST ST LOUIS, IL +	DALLAS, TX +	BNSF DIRECT	C01		6030 PC				D01	S00 1
WICHITA, KS +	GLENDALE, AZ	BNSF DIRECT	C01		10971 PC				D01	S00 1
WICHITA, KS +	VERNON, CA	BNSF DIRECT	C01		13637 PC				D01	S00 1
WICHITA, KS +	HUDSON, CO +	BNSF DIRECT	C01		5673 PC				D01	S00 1
WICHITA, KS +	CHICAGO, IL +	BNSF DIRECT	C01		6353 PC				D01	S00 1
WICHITA, KS +	EAST ST LOUIS, IL +	BNSF DIRECT	C01		4923 PC				D01	S00 1
WICHITA, KS +	MADISON, IL	BNSF DIRECT	C01		4923 PC				D01	S00 1
WICHITA, KS +	NEW ORLEANS, LA +	BNSF DIRECT	C01		8711 PC				D01	S00 1
WICHITA, KS +	KANSAS CITY, MO +	BNSF DIRECT	C01		3092 PC				D01	S00 1
WICHITA, KS +	TULSA PORT AUTHORIT, OK	BNSF DIRECT	C01		3915 PC				D01	S00 1
WICHITA, KS +	MEMPHIS, TN +	BNSF DIRECT	C01		5994 PC				D01	S00 1
WICHITA, KS +	ALLIANCE, TX	BNSF DIRECT	C01		4142 PC				D01	S00 1

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RATE ITEM PRICE LIST

ORIGIN	DESTINATION	ROUTE	COM	WGT	EQ-TANK, PR,ZR-1					DTE	SHIP
PADUCAH, KY	CAMANCHE, IA	BNSF DIRECT	C01		3850 PC					D01	S00 1
LAKE CHARLES, LA +	NEW ORLEANS, LA	BNSF DIRECT	C01		2410 PC					D01	S00 1
LAKE CHARLES, LA +	TULSA PORT AUTHORIT, OK	BNSF DIRECT	C01		7282 PC					D01	S00 1
LAKE CHARLES, LA +	MEMPHIS, TN +	BNSF DIRECT	C01		5740 PC					D01	S00 1
LAKE CHARLES, LA +	ELDON JCT, TX	BNSF DIRECT	C01		2563 PC					D01	S00 1
LAKE CHARLES, LA +	FT WORTH, TX +	BNSF DIRECT	C01		4501 PC					D01	S00 1
LAKE CHARLES, LA +	HOUSTON, TX +	BNSF DIRECT	C01		2646 PC					D01	S00 2
NEW ORLEANS, LA +	TULSA PORT AUTHORIT, OK	BNSF DIRECT	C01		8100 PC					D01	S00 1
NEW ORLEANS, LA +	BEAUMONT, TX +	BNSF DIRECT	C01		2742 PC					D01	S00 1
NEW ORLEANS, LA +	ELDON, TX	BNSF DIRECT	C01		2823 PC					D01	S00 1
NEW ORLEANS, LA +	ELDON JCT, TX	BNSF DIRECT	C01		2923 PC					D01	S00 1
NEW ORLEANS, LA +	HOUSTON, TX +	BNSF DIRECT	C01		3071 PC					D01	S00 1
NOYES, MN +	SWEETWATER, TX	BNSF DIRECT	C01		18281 PC					D01	S00 1
TUPELO, MS	HAMILTON, MS	BNSF DIRECT	C01		1682 PC					D01	S00 1
MEMPHIS, TN +	MADISON, IL	BNSF DIRECT	C01		3016 PC					D01	S00 1
MEMPHIS, TN +	KANSAS CITY, KS +	BNSF DIRECT	C01		4287 PC					D01	S00 1
MEMPHIS, TN +	VERONA, MO	BNSF DIRECT	C01		3282 PC					D01	S00 1
MEMPHIS, TN +	AMORY, MS +	BNSF DIRECT	C01		3204 PC					D01	S00 1
MEMPHIS, TN +	HAMILTON, MS	BNSF DIRECT	C01		2333 PC					D01	S00 1
MEMPHIS, TN +	ELDON JCT, TX	BNSF DIRECT	C01		5844 PC					D01	S00 1
BEAUMONT, TX +	MADISON, IL	BNSF DIRECT	C01		6580 PC					D01	S00 1
BEAUMONT, TX +	TULSA PORT AUTHORIT, OK	BNSF DIRECT	C01		5427 PC					D01	S00 1
BEAUMONT, TX +	PANHANDLE, TX	BNSF DIRECT	C01		6338 PC					D01	S00 1

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**RATE ITEM PRICE LIST**

ORIGIN	DESTINATION	ROUTE	COM	WGT	EQ-TANK, PRLR-1					DTE	SNP
BEAUMONT, TX +	YOUJENS, TX	BNSF DIRECT	C01		1781 PC					D01	S00 1
BORGER, TX	BIRMINGHAM, AL +	BNSF DIRECT	C01		8298 PC					D01	S00 1
BORGER, TX	CHICAGO, IL +	BNSF DIRECT	C01		8883 PC					D01	S00 1
BORGER, TX	EAST ST LOUIS, IL +	BNSF DIRECT	C01		7744 PC					D01	S00 1
BORGER, TX	MADISON, IL	BNSF DIRECT	C01		7551 PC					D01	S00 1
BORGER, TX	COLUMBUS, KS	BNSF DIRECT	C01		5638 PC					D01	S00 1
BORGER, TX	KANSAS CITY, KS +	BNSF DIRECT	C01		5988 PC					D01	S00 1
BORGER, TX	NEW ORLEANS, LA +	BNSF DIRECT	C01		10164 PC					D01	S00 1
BORGER, TX	SOUTH RIVER, MO	BNSF DIRECT	C01		8338 PC					D01	S00 1
BORGER, TX	ST JOSEPH, MO	BNSF DIRECT	C01		6064 PC					D01	S00 1
BORGER, TX	ALLANCE, TX	BNSF DIRECT	C01		4131 PC					D01	S00 1
BORGER, TX	AMARILLO, TX +	BNSF DIRECT	C01		3101 PC					D01	S00 1
BORGER, TX	BEAUMONT, TX +	BNSF DIRECT	C01		8838 PC					D01	S00 1
BORGER, TX	DAYTON, TX +	BNSF DIRECT	C01		7632 PC					D01	S00 1
BORGER, TX	FT WORTH, TX +	BNSF DIRECT	C01		3780 PC					D01	S00 1
BORGER, TX	HOUSTON, TX +	BNSF DIRECT	C01		7188 PC					D01	S00 1
BORGER, TX	PASADENA, TX	BNSF DIRECT	C01		8628 PC					D01	S00 1
BORGER, TX	TEMPLE, TX	BNSF DIRECT	C01		5000 PC					D01	S00 1
EAGLE PASS, TX +	BIRMINGHAM, AL +	BNSF DIRECT	C01		8652 PC					D01	S00 1
EAGLE PASS, TX +	CHICAGO, IL +	BNSF DIRECT	C01		10862 PC					D01	S00 1
EAGLE PASS, TX +	EAST ST LOUIS, IL +	BNSF DIRECT	C01		8784 PC					D01	S00 1
EAGLE PASS, TX +	NEW ORLEANS, LA +	BNSF DIRECT	C01		9882 PC					D01	S00 1
EAGLE PASS, TX +	AMORY, MS +	BNSF DIRECT	C01		12271 PC					D01	S00 1

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ORIGIN	DESTINATION	ROUTE	COMI	WGT	EQ-TANK, PR, ZR-1					DTE	SNP
EAGLE PASS, TX +	TULSA PORT AUTHORIT, OK	BNSF DIRECT	C01		5125 PC					D01	S00 1
EAGLE PASS, TX +	AMARILLO, TX +	BNSF DIRECT	C01		9816 PC					D01	S00 1
EAGLE PASS, TX +	BORGER, TX	BNSF DIRECT	C01		9816 PC					D01	S00 1
EAGLE PASS, TX +	CLEBURNE, TX +	BNSF DIRECT	C01		7279 PC					D01	S00 1
EAGLE PASS, TX +	FT WORTH, TX +	BNSF DIRECT	C01		6513 PC					D01	S00 1
EAGLE PASS, TX +	HOUSTON, TX +	BNSF DIRECT	C01		7337 PC					D01	S00 1
EAGLE PASS, TX +	PANHANDLE, TX	BNSF DIRECT	C01		10719 PC					D01	S00 1
HOUSTON, TX +	MADISON, IL	BNSF DIRECT	C01		6057 PC					D01	S00 1
HOUSTON, TX +	NEW ORLEANS, LA	BNSF DIRECT	C01		3843 PC					D01	S00 1
HOUSTON, TX +	VERONA, MO	BNSF DIRECT	C01		6033 PC					D01	S00 1
HOUSTON, TX +	CLEBURNE, TX +	BNSF DIRECT	C01		3655 PC					D01	S00 1
HOUSTON, TX +	HOUSTON, TX +	BNSF DIRECT	C01		2282 PC					D01	S00 1
LA PORTE, TX +	VERNON, CA	BNSF DIRECT	C01		15371 PC					D01	S00 1
LA PORTE, TX +	NEW ORLEANS, LA	BNSF DIRECT	C01		3843 PC					D01	S00 1
LA PORTE, TX +	BEAUMONT, TX +	BNSF DIRECT	C01		2617 PC					D01	S00 1
MARSHALL, WA	GLENDALE, AZ	BNSF DIRECT	C01		11045 PC						S00 1
MARSHALL, WA	PHOENIX, AZ +	BNSF DIRECT	C01		11045 PC						S00 1
MARSHALL, WA	NORTH VANCOUVER, BC	BNSF DIRECT	C01		4910 PC						S00 1
MARSHALL, WA	PITTSBURG, CA +	BNSF DIRECT	C01		8881 PC						S00 1
MARSHALL, WA	WOODSBRO, CA	BNSF DIRECT	C01		5708 PC						S00 1
MARSHALL, WA	HUDSON, CO +	BNSF DIRECT	C01		11639 PC						S00 1
MARSHALL, WA	CAMANACHE, IA	BNSF DIRECT	C01		11429 PC						S00 1
MARSHALL, WA	CHICAGO, IL +	BNSF DIRECT	C01		11910 PC						S00 1

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ORIGIN	DESTINATION	ROUTE	COM	WGT	EQ-TANK, PR,ZR-1				DTE	SHIP
MARSHALL, WA	NORTHTOWN, MN	BNSF DIRECT	C01		10478 PC					S00 1
MARSHALL, WA	ST LOUIS, MO +	BNSF DIRECT	C01		17115 PC					S00 1
MARSHALL, WA	ALBUQUERQUE, NM +	BNSF DIRECT	C01		13814 PC					S00 1
MARSHALL, WA	TULSA PORT AUTHORIT, OK	BNSF DIRECT	C01		16588 PC					S00 1
MARSHALL, WA	MEMPHIS, TN +	BNSF DIRECT	C01		14488 PC					S00 1
MARSHALL, WA	ALLIANCE, TX	BNSF DIRECT	C01		16710 PC					S00 1
MARSHALL, WA	CLEBURNE, TX +	BNSF DIRECT	C01		16928 PC					S00 1
MARSHALL, WA	DALLAS, TX +	BNSF DIRECT	C01		18837 PC					S00 1
MARSHALL, WA	FT WORTH, TX +	BNSF DIRECT	C01		17110 PC					S00 1
MARSHALL, WA	HOUSTON, TX +	BNSF DIRECT	C01		17485 PC					S00 1
MARSHALL, WA	SWEETWATER, TX	BNSF DIRECT	C01		16038 PC					S00 1
MARSHALL, WA	AYER, WA	BNSF DIRECT	C01		3235 PC					S00 1
MARSHALL, WA	SPOKANE, WA +	BNSF DIRECT	C01		1800 PC					S00 3
MARSHALL, WA	TACOMA, WA +	BNSF DIRECT	C01		2100 PC					S00 1
MARSHALL, WA	VANCOUVER, WA +	BNSF DIRECT	C01		3000 PC					S00 1

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ORIGIN GEOGRAPHY GROUPS

GROUP - MINNEAPOLIS/ST PAUL, MN  
MINNEAPOLIS, MN +  
ST PAUL, MN +

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REVISION	NOTE DATE	DESCRIPTION	EXTERNAL NOTES
20	03-02-2011	added various rates eff 3/3/11	
19	02-24-2011	Added rate from East St Louis, IL to Dallas, TX effective 3/16/11.	
18	02-23-2011	Added rates from Chicago, IL to Lewiston, ID; Tacoma, WA and Ardmore, OK and reduced rate from Chicago, IL to Sweetwater, TX effective 3/16/11.	
17	02-22-2011	Added rate from East St Louis, IL to Alliance, TX effective 3/16/11.	
16	02-17-2011	Added rate from Chicago, IL to Page, OR; and Courts, AB to Borger, TX; Hudson, CO and Newport, WA effective 3/16/11.	
15	02-16-2011	Added rate from Chicago, IL to Tulsa Port Authority effective 3/16/2011. Correct condition.	
15	02-16-2011	Added rate from Chicago, IL to Tulsa Port Authority effective 3/16/2011.	
14	02-10-2011	Groups have been modified. Please review Group Details for more information.	
13	02-10-2011	added various rates eff 3/16/11	
12	01-19-2011	added rates for New Westminster, BC to Pittsburg, CA and Kalama, WA eff 3/16/11	
11	01-07-2011	changed R11 conditions for all rates eff 3/16/11	
10	01-04-2011	renewal with increase eff 3/16/11	
9	12-09-2010	Extend to 03/15/11	
8	12-07-2010	extended expiration date to 2/28/11	
7	11-10-2010	Groups have been modified. Please review Group Details for more information.	

# **EXHIBIT 3**

**THIS EXHIBIT IS A HIGHLY  
CONFIDENTIAL DOCUMENT**

# **EXHIBIT 4**

**THIS EXHIBIT IS A HIGHLY  
CONFIDENTIAL DOCUMENT**

# **EXHIBIT 5**

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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**CANEXUS CHEMICALS  
CANADA L.P.**

**Complainant,**

**v.**

**BNSF RAILWAY COMPANY**

**Defendant.**

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**STB Docket No. 42132**

**VERIFIED STATEMENT OF BENTON V. 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 to evaluate operations and the reasonableness of rates in matters before the Surface Transportation Board ("STB"). 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, including challenges to chlorine rates evaluated using the standards adopted by the STB in *Simplified Standards for Rail Rate Cases*.<sup>1</sup> 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 (“BNSF”) to submit this Verified Statement (“VS”) to support BNSF’s Motion to Permit Consideration of 2011 TIH Movements from BNSF Traffic Data in Selecting Comparison Group in STB Docket No. 42132. This dispute relates to a complaint that Canexus Chemicals Canada (“Canexus”) filed November 14, 2011 (“Nov. 2011 Complaint”) regarding the reasonableness of rates that BNSF charges for transportation of chlorine from North Vancouver, British Columbia, Canada to two destinations, Glendale, Arizona and Albuquerque, New Mexico. In its complaint, Canexus requests that the rates be evaluated under the “Three-Benchmark approach” set forth in *Simplified Standards*. Under that approach, the parties usually look first to the defendant’s historical Carload Waybill Samples (“CWS”) to identify a group of comparable movements for which the  $R/VC_{COMP}$  benchmark<sup>2</sup> is to be determined.

In this Verified Statement, I show how few long-haul<sup>3</sup> chlorine movements appear in the BNSF Carload Waybill Samples released to the parties in this case. I also show that the current (*i.e.*, post March 15, 2011)  $R/VC$  ratios for BNSF’s long-haul chlorine shipments are considerably higher than those reflected in the BNSF 2006-2009 Carload Waybill Samples.

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<sup>1</sup> STB Ex Parte No. 646 (Sub-No. 1), served September 5, 2007 (“*Simplified Standards*”).

<sup>2</sup> The  $R/VC_{COMP}$  represents the average revenue-to-variable-cost (“ $R/VC$ ”) ratio for the movements in the comparison group.

<sup>3</sup> As BNSF identified in Exhibit 1 to its Initial Disclosures filed December 5, 2011, the average loaded length of haul for each of the issue-traffic movements is more than {        } miles.

## **II. THERE ARE VERY FEW RECORDS FOR LONG-HAUL TIH SHIPMENTS IN BNSF'S 2006-2009 CARLOAD WAYBILL SAMPLES**

### **A. Each Issue-Traffic Movement is More Than { } Miles**

In preparing its Answer, BNSF determined from its traffic files the actual distances that loaded chlorine shipments traveled from North Vancouver to each of Glendale and Albuquerque. For shipments from March 16, 2011 through September 30, 2011, the issue-traffic movements averaged { } miles to Glendale and { } miles to Albuquerque.<sup>4</sup> These shipments are considerably longer than the issue-traffic movements of chlorine from past Three-Benchmark cases. The Canexus issue movements are two-to-four times as long as the three CSXT lanes in the Three-Benchmark chlorine rate case brought by DuPont, which ranged from 588 to 881 miles.<sup>5</sup> And the Canexus issue movements are one and one-half times to twice as long as the two UP lanes in the Three-Benchmark chlorine rate case brought by U.S. Magnesium, which were 1,250 and 1,290 miles.<sup>6</sup>

### **B. Long-Haul TIH Movements in the Carload Waybill Sample**

In prior Three-Benchmark cases, the STB adopted comparison groups that were limited to movements that had lengths of haul considered to be comparable to the length of haul of the issue traffic. To incorporate length of haul as a comparability factor, the movements in the comparison group were limited to those that had distances within a specified number of miles of each of the issue-traffic movements. In *DuPont*, the STB adopted separate comparison groups

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<sup>4</sup> In its Initial Disclosure, Canexus identified as the source of its distances the PC\**Rail* program. The STB has previously adopted mileages that reflect routes that were actually used by the issue traffic in favor of presumed routings. See, e.g., *E.I. DuPont de Nemours v. CSX Transportation*, STB Docket No. 42100, served June 30, 2008 ("*DuPont*"), slip op. at 18, fn 53.

<sup>5</sup> *DuPont*, slip op. at 1.

<sup>6</sup> *U.S. Magnesium v. Union Pacific Railroad*, STB Docket No. 42114, served January 28, 2010 ("*U.S. Magnesium*"), slip op. at 3.

for each challenged rate that included shipments that were within 150 miles of the average length of haul for each of the issue-traffic movements.<sup>7</sup> In *U.S. Magnesium*, the STB adopted comparison groups that included shipments that were within 200 miles of the length of haul for each of the issue-traffic movements.<sup>8</sup>

I identified the number of chlorine movements in the BNSF 2006-2009 Carload Waybill Samples released to the parties in this case that were within 500 miles<sup>9</sup> of the average length of haul for each issue-traffic movement, which is more than twice as broad as the mileage ranges that have been adopted previously in Three-Benchmark cases involving chlorine. In the 2009 CWS, there were { } local chlorine shipments that were within 500 miles of the average length of haul of the issue-traffic movements to Glendale, and *only* { } for local chlorine shipments within 500 miles of the average length of haul to Albuquerque.<sup>10</sup>

In addition to identifying local shipments for which BNSF originates and terminates the traffic – as it does for the issue-traffic movements – the CWS also includes Rule 11 shipments where BNSF bills the customer for a portion of an interline movement, which can be identified by the “Rebill Code” field in the CWS.<sup>11</sup> In the 2009 CWS, there were { } Rule 11 chlorine shipments within 500 miles of the Glendale length of haul, and *only* { } for Rule 11 chlorine shipments within 500 miles of the Albuquerque length of haul.

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<sup>7</sup> *DuPont*, slip op. at 8, fn 25.

<sup>8</sup> *U.S. Magnesium*, slip op. at 6.

<sup>9</sup> As indicated, this particular distance is selected for the purpose of identifying the low number of records for long-haul chlorine movements in the CWS. It would be pre-mature to suggest that it reflects the distance BNSF would propose for determining the appropriate comparison groups.

<sup>10</sup> To identify the potential universe of records that could be included in the comparison group – before other criteria are applied – I include only CWS records that have an R/VC ratio greater than 180%, and excluded any CWS records for the issue-traffic movements.

<sup>11</sup> I include in the CWS record counts only the rebill shipments for which the CWS reports BNSF’s revenues, and not standard interline movements that are billed jointly for which the CWS {

}).

Table 1 below summarizes the number of chlorine shipments from the CWS within 500 miles of the average length of haul for each issue-traffic movement, separately for 2009 and for all four years of CWS records that were released to the parties in this case. As many of the CWS long-haul chlorine shipments are within 500 miles of both destinations, Table 1 also includes the overall total, *i.e.*, all shipments within 500 miles of either destination.

**Table 1:  
BNSF CWS Records for Chlorine Shipments  
within 500 Miles of the Average Length of Haul  
for Each Issue Destination, and Combined;  
R/VC > 180%, Excluding Issue Traffic**

CWS Source	Glendale ±500 Miles		Albuquerque ±500 Miles		Combined, { } Miles	
	Local	Rebill	Local	Rebill	Local	Rebill
2009	{					}
2006-2009	{					}

Complainants in recent Three-Benchmark cases have argued that shipments of other commodities should be included in the comparison groups used to evaluate and set chlorine rates. I will not address here the issue of whether such non-chlorine shipments should be considered comparable. For purposes of BNSF's motion, I identified the corresponding number of CWS records for other toxic-by-inhalation ("TIH") commodities of distances within 500 miles of the average length of haul for each issue-traffic destination in Table 2 below.<sup>12</sup>

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<sup>12</sup> {

**Table 2:  
BNSF CWS Records for Non-Chlorine TIH Shipments  
within 500 Miles of the Average Length of Haul  
for Each Issue Destination, and Combined; R/VC > 180%**

CWS Source	Glendale ±500 Miles		Albuquerque ±500 Miles		Combined, { } Miles	
	Local	Rebill	Local	Rebill	Local	Rebill
2009	{					}
2006-2009	{					}

**III. BNSF's CURRENT R/VC RATIOS FOR LONG-HAUL CHLORINE SHIPMENTS ARE SIGNIFICANTLY HIGHER THAN THOSE FOR SUCH MOVEMENTS INCLUDED IN THE 2006-2009 CARLOAD WAYBILL SAMPLES**

**A. BNSF's Current R/VC Ratios for Long-Haul Chlorine Movements Exceed { }**

In its complaint, Canexus claimed that "Effective March 16, 2011, BNSF substantially increased its common carrier tariff rates for shipments of chlorine to Glendale, Albuquerque, and other destinations in BNSF Price Authority 90096."<sup>13</sup> Based on records from BNSF's traffic files for TIH shipments from March 16-September 30, 2011, I determined which chlorine shipments had a loaded length of haul within 500 miles of either of the issue-traffic movements, *i.e.*, reported loaded distances between { } miles, and determined the other movements inputs that are necessary to calculate URCS variable costs for each shipment (*e.g.*, car type, lading weight). I then calculated the URCS costs for each of these shipments based on the BNSF 2010 URCS unit cost files recently released by the STB.<sup>14</sup> I followed standard indexing procedures to bring the base-year 2010 results to the appropriate quarter in 2011, and calculated the R/VC ratio for each shipment. Based on this analysis, I determined that from March 16, 2011 through September 30, 2011, there were { } BNSF local chlorine carloads

<sup>13</sup> Nov. 2011 Complaint at 5.

<sup>14</sup> <http://www.stb.dot.gov/stb/industry/urcs.html>

that moved at R/VC ratios greater than 180%, and they had an average R/VC ratio of { }. I also determined that there were { } interline<sup>15</sup> chlorine carloads for which the R/VC ratio for the BNSF portion was greater than 180%, and they had an average R/VC ratio of { }. Table 3 below presents the post-March 15, 2011 total carloads and average R/VC ratios separately for chlorine shipments with lengths of haul within 500 miles of each destination, and also the overall results for all shipments within 500 miles of either destination.

**Table 3:  
Total Carloads and Average R/VC Ratios for  
BNSF Post-March 15, 2011 Chlorine Shipments  
within 500 Miles of the Average Length of Haul  
for Each Issue Destination, and Combined;  
R/VC > 180%, Excluding Issue Traffic**

CWS Source	Glendale ±500 Miles		Albuquerque ±500 Miles		Combined, { } Miles	
	Local	Interline	Local	Interline	Local	Interline
Total Carloads	{					}
Average R/VC	{					}

**B. BNSF's R/VC Ratios for Long-Haul Chlorine Movements from Historical Carload Waybill Samples are Less Than { }**

I also determined the average R/VC ratios for the CWS chlorine shipments with distances within 500 miles of the issue-traffic movements, and present the results for the corresponding destinations and CWS periods, separately for local and rebilled shipments, corresponding to the CWS record counts summarized in Table 1 above.

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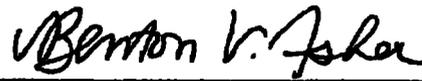
<sup>15</sup> { } the records from BNSF's traffic files identified BNSF's share of the revenues for all interline movements, not just Rule 11 shipments, which permitted the calculation of an R/VC ratio for only BNSF's portion of the through movement. { }

**Table 4:  
Average R/VC Ratios for  
BNSF CWS Records for Chlorine Shipments  
within 500 Miles of the Average Length of Haul  
for Each Issue Destination, and Combined;  
R/VC > 180%, Excluding Issue Traffic**

CWS Source	Glendale +500 Miles		Albuquerque +500 Miles		Combined, { } Miles	
	Local	Rebill	Local	Rebill	Local	Rebill
2009	{					}
2006-2009	{					}

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 December 14, 2011

A handwritten signature in black ink that reads "Benton V. Fisher". The signature is written in a cursive style with a large initial "B".

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Benton V. Fisher

## Benton V. Fisher

Senior Managing Director - Economic Consulting

Senior Advisor & Consultant

### FTI Consulting

1101 K Street, NW  
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### Education

B.S. in Engineering and  
Management Systems,  
Princeton University

**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.



CRITICAL THINKING  
AT THE CRITICAL TIME

**TESTIMONY**

**Surface Transportation Board**

- 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
- September 28, 1999 Docket No. 42038 Minnesota Power, Inc. v. Duluth, Missabe and Iron Range Railway Company, Rebuttal Verified Statement of Christopher D. Kent and Benton V. Fisher
- 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
- August 14, 2000 Docket No. 42051 Wisconsin Power and Light Company v. Union Pacific Railroad Company, Reply Verified Statement of Christopher D. Kent and Benton V. Fisher
- September 28, 2000 Docket No. 42051 Wisconsin Power and Light Company v. Union Pacific Railroad Company, Rebuttal Verified Statement of Christopher D. Kent and Benton V. Fisher
- December 14, 2000 Docket No. 42054 PPL Montana, LLC v. The Burlington Northern Santa Fe Railway Company, Opening Verified Statement of Christopher D. Kent and Benton V. Fisher
- 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
- May 7, 2001 Docket No. 42054 PPL Montana, LLC v. The Burlington Northern Santa Fe Railway Company, Rebuttal Verified Statement of Christopher D. Kent and Benton V. Fisher

Benton V. Fisher

October 15, 2001 Docket No. 42056 Texas Municipal Power Agency v. The Burlington Northern Santa Fe Railway Company, Opening Verified Statement of Benton V. Fisher

January 15, 2002 Docket No. 42056 Texas Municipal Power Agency v. The Burlington Northern Santa Fe Railway Company, Reply Verified Statement of Benton V. Fisher

February 25, 2002 Docket No. 42056 Texas Municipal Power Agency v. The Burlington Northern Santa Fe Railway Company, Rebuttal Verified Statement of Benton V. Fisher

May 24, 2002 Docket No. 42069 Duke Energy Corporation v. Norfolk Southern Railway Company, Opening Evidence and Argument of Norfolk Southern Railway Company

June 10, 2002 Docket No. 42072 Carolina Power & Light Company v. Norfolk Southern Railway Company, Opening Evidence and Argument of Norfolk Southern Railway Company

July 19, 2002 Northern States Power Company Minnesota v. Union Pacific Railroad Company, Union Pacific's Opening Evidence

September 30, 2002 Docket No. 42069 Duke Energy Corporation v. Norfolk Southern Railway Company, Reply Evidence and Argument of Norfolk Southern Railway Company

October 4, 2002 Northern States Power Company Minnesota v. Union Pacific Railroad Company, Union Pacific's Reply Evidence

October 11, 2002 Docket No. 42072 Carolina Power & Light Company v. Norfolk Southern Railway Company, Reply Evidence and Argument of Norfolk Southern Railway Company

November 1, 2002 Northern States Power Company Minnesota v. Union Pacific Railroad Company, Union Pacific's Rebuttal Evidence

November 19, 2002 Docket No. 42069 Duke Energy Corporation v. Norfolk Southern Railway Company, Rebuttal Evidence and Argument of Norfolk Southern Railway Company

November 27, 2002 Docket No. 42072 Carolina Power & Light Company v. Norfolk Southern Railway Company, Rebuttal Evidence and Argument of Norfolk Southern Railway Company

January 10, 2003 Docket No. 42057 Public Service Company of Colorado D/B/A Xcel Energy v. The Burlington Northern and Santa Fe Railway Company, Opening Evidence and Argument of The Burlington Northern and Santa Fe Railway Company

February 7, 2003 Docket No. 42058 Arizona Electric Power Cooperative, Inc. v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad, Opening Evidence of The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad

Benton V. Fisher

April 4, 2003 Docket No. 42057 Public Service Company of Colorado D/B/A Xcel Energy v. The Burlington Northern and Santa Fe Railway Company, Reply Evidence and Argument of The Burlington Northern and Santa Fe Railway Company

May 19, 2003 Docket No. 42057 Public Service Company of Colorado D/B/A Xcel Energy v. The Burlington Northern and Santa Fe Railway Company, Rebuttal Evidence and Argument of The Burlington Northern and Santa Fe Railway Company

May 27, 2003 Docket No. 42058 Arizona Electric Power Cooperative, Inc. v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad, Joint Variable Cost Reply Evidence of The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad

May 27, 2003 Docket No. 42058 Arizona Electric Power Cooperative, Inc. v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad, Reply Evidence of The Burlington Northern and Santa Fe Railway Company

June 13, 2003 Docket No. 42071 Otter Tail Power Company v. The Burlington Northern and Santa Fe Railway Company, Opening Evidence of The Burlington Northern and Santa Fe Railway Company

July 3, 2003 Docket No. 42058 Arizona Electric Power Cooperative, Inc. v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad, Joint Variable Cost Rebuttal Evidence of The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad

October 8, 2003 Docket No. 42071 Otter Tail Power Company v. The Burlington Northern and Santa Fe Railway Company, Reply Evidence of The Burlington Northern and Santa Fe Railway Company

October 24, 2003 Docket No. 42069 Duke Energy Corporation v. Norfolk Southern Railway Company Supplemental Evidence of Norfolk Southern Railway Company

October 31, 2003 STB Docket No. 42069 Duke Energy Corporation v. Norfolk Southern Railway Company, Reply of Norfolk Southern Railway Company to Duke Energy Company's Supplemental Evidence

November 24, 2003 STB Docket No. 42072 Carolina Power & Light Company v. Norfolk Southern Railway Company, Supplemental Evidence of Norfolk Southern Railway Company

December 2, 2003 STB Docket No. 42072 Carolina Power & Light Company v. Norfolk Southern Railway Company, Reply of Norfolk Southern Railway Company to Carolina Power & Light Company's Supplemental Evidence

January 26, 2004 STB Docket No. 42058 Arizona Electric Power Cooperative, Inc. v. The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad Company, Joint Supplemental Reply Evidence and Argument of The Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad Company

Benton V. Fisher

March 1, 2004 STB Docket No. 41191 (Sub-No. 1) AEP Texas North Company v. The Burlington Northern and Santa Fe Railway Company, Opening Evidence and Argument of The Burlington Northern and Santa Fe Railway Company

March 22, 2004 STB Docket No. 42071 Otter Tail Power Company v. The Burlington Northern and Santa Fe Railway Company, Supplemental Reply Evidence of The Burlington Northern and Santa Fe Railway Company

April 29, 2004 STB Docket No. 42071 Otter Tail Power Company v. The Burlington Northern and Santa Fe Railway Company, Rebuttal Evidence of The Burlington Northern and Santa Fe Railway Company

May 24, 2004 STB Docket No. 41191 (Sub-No. 1) AEP Texas North Company v. The Burlington Northern and Santa Fe Railway Company, Reply Evidence of The Burlington Northern and Santa Fe Railway Company

March 1, 2005 Docket No. 42071 Otter Tail Power Company v. BNSF Railway Company, Supplemental Evidence of BNSF Railway Company

April 4, 2005 Docket No. 42071 Otter Tail Power Company v BNSF Railway Company, Reply of BNSF Railway Company to Supplemental Evidence

April 19, 2005 Docket No. 42088 Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company, Opening Evidence of BNSF Railway Company

July 20, 2005 Docket No. 42088 Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company, Reply Evidence of BNSF Railway Company

July 27, 2004 STB Docket No. 41191 (Sub-No. 1) AEP Texas North Company v. The Burlington Northern and Santa Fe Railway Company, Rebuttal Evidence of The Burlington Northern and Santa Fe Railway Company

September 30, 2005 Docket No. 42088 Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company, Rebuttal Evidence of BNSF Railway Company

October 20, 2005 Docket No. 42088 Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company, Surrebuttal Evidence of BNSF Railway Company

June 15, 2006 Docket No. 42088 Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company, Reply Supplemental Evidence of BNSF Railway Company

June 15, 2006 Docket No. 41191 (Sub-No. 1) AEP Texas North Company v. BNSF Railway Company, Reply Supplemental Evidence of BNSF Railway Company

March 19, 2007 Docket No. 41191 (Sub-No. 1) AEP Texas North Company v. BNSF Railway Company, Reply Third Supplemental Evidence of BNSF Railway Company

Benton V. Fisher

March 26, 2007	Docket No. 42088 Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company, Reply Second Supplemental Evidence of BNSF Railway Company
July 30, 2007	Docket No. 42095 Kansas City Power & Light v. Union Pacific Railroad Company, Union Pacific's Opening Evidence
August 20, 2007	Docket No. 42095 Kansas City Power & Light v. Union Pacific Railroad Company, Union Pacific's Reply Evidence
February 4, 2008	Docket No. 42099 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Opening Evidence of CSXT
February 4, 2008	Docket No. 42100 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Opening Evidence of CSXT
February 4, 2008	Docket No. 42101 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Opening Evidence of CSXT
March 5, 2008	Docket No. 42099 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Reply Evidence of CSXT
March 5, 2008	Docket No. 42100 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Reply Evidence of CSXT
March 5, 2008	Docket No. 42101 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Reply Evidence of CSXT
April 4, 2008	Docket No. 42099 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Rebuttal Evidence of CSXT
April 4, 2008	Docket No. 42100 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Rebuttal Evidence of CSXT
April 4, 2008	Docket No. 42101 E.I. DuPont De Nemours and Company v. CSX Transportation, Inc., Rebuttal Evidence of CSXT
July 14, 2008	Docket No. 42088 Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company, Third Supplemental Reply Evidence of BNSF Railway Company
August 8, 2008	Docket No. 41191 (Sub-No. 1) AEP Texas North Company v. BNSF Railway Company, Fourth Supplemental Evidence of BNSF Railway Company
September 5, 2008	Docket No. 41191 (Sub-No. 1) AEP Texas North Company v. BNSF Railway Company, Fourth Supplemental Reply Evidence of BNSF Railway Company
October 17, 2008	Docket No. 42110 Seminole Electric Cooperative, Inc. v. CSX Transportation, Inc., CSX Transportation, Inc.'s Reply to Petition for Injunctive Relief, Verified Statement of Benton V. Fisher
August 24, 2009	Docket No. 42114 US Magnesium, L.L.C. v. Union Pacific Railroad Company, Opening Evidence of Union Pacific Railroad Company

Benton V. Fisher

September 22, 2009 Docket No. 42114 US Magnesium, L.L.C. v. Union Pacific Railroad Company, Reply Evidence of Union Pacific Railroad Company

October 22, 2009 Docket No. 42114 US Magnesium, L.L.C. v. Union Pacific Railroad Company, Rebuttal Evidence of Union Pacific Railroad Company

January 19, 2010 Docket No. 42110 Seminole Electric Cooperative, Inc. v. CSX Transportation, Inc., Reply Evidence of CSX Transportation, Inc.

May 7, 2010 Docket No. 42113 Arizona Electric Power Cooperative, Inc. v. BNSF Railway Company and Union Pacific Railroad Company, Joint Reply Evidence of BNSF Railway Company and Union Pacific Railroad Company

October 1, 2010 Docket No. 42121 Total Petrochemicals USA, Inc. v. CSX Transportation, Inc., Motion for Expedited Determination of Jurisdiction Over Challenged Rates, Verified Statement of Benton V. Fisher

November 22, 2010 Docket No. 42088 Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. v. BNSF Railway Company, Comments of BNSF Railway Company on Remand, Joint Verified Statement of Michael R. Baranowski and Benton V. Fisher

January 6, 2011 Docket No. 42056 Texas Municipal Power Agency v. BNSF Railway Company, BNSF Reply to TMPA Petition for Enforcement of Decision, Joint Verified Statement of Michael R. Baranowski and Benton V. Fisher

July 5, 2011 Docket No. 42123 M&G Polymers USA, LLC v. CSX Transportation, Inc., Reply Market Dominance Evidence of CSX Transportation, Inc.

August 1, 2011 Docket No. 42125 E.I. DuPont De Nemours and Company v. Norfolk Southern Railway Company, Norfolk Southern Railway's Reply to Second Motion to Compel, Joint Verified Statement of Benton V. Fisher and Michael Matelis

August 5, 2011 Docket No. 42121 Total Petrochemicals USA, Inc. v. CSX Transportation, Inc. , Reply Market Dominance Evidence of CSX Transportation, Inc.

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

October 24, 2011 Docket No. 42120 Cargill, Inc. v. BNSF Railway Company, BNSF Railway Company's Reply Evidence and Argument, Verified Statement of Benton V. Fisher

October 28, 2011 Docket No. FD 35506 Western Coal Traffic League - Petition for Declaratory Order, Opening Evidence of BNSF Railway Company, Joint Verified Statement of Michael R. Baranowski and Benton V. Fisher

November 10, 2011 Docket No. 42127 Intermountain Power Agency v. Union Pacific Railroad Company, Reply Evidence of Union Pacific Railroad Company

Benton V. Fisher

**U.S. District Court for the Eastern District of North Carolina**

March 17, 2008 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.

**Arbitrations and Mediations**

July 10, 2009 JAMS Ref. # 1220039135; In the Matter of the Arbitration Between Pacer International, Inc., d/b/a/ Pacer Stacktrain (i/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

# **EXHIBIT 6**

**THIS EXHIBIT IS A HIGHLY  
CONFIDENTIAL DOCUMENT**

# **EXHIBIT 7**

**THIS EXHIBIT IS A HIGHLY  
CONFIDENTIAL DOCUMENT**

# **EXHIBIT 8**

**THIS EXHIBIT IS A HIGHLY  
CONFIDENTIAL DOCUMENT**

# APPENDIX A

**WITNESS QUALIFICATIONS**

Benton V. Fisher is a Senior Managing Director at FTI Consulting, Inc., an economic and financial consulting firm with offices located at 1101 K Street, NW, Washington, D.C., 20005. Mr. Fisher has been involved in various aspects of transportation consulting, including economic studies involving costs and revenues, traffic and operating analyses, and work with performance measures and financial reporting systems.

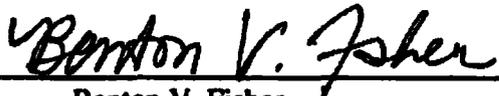
Mr. Fisher holds a Bachelor of Science in Engineering from Princeton University. In 1990, he served as the Deputy Controller for the Bill Bradley for the U.S. Senate Campaign. In 1991, he joined Klick, Kent & Allen, Inc., which was acquired by FTI Consulting in 1998. While with the firm, Mr. Fisher has performed numerous analyses for and assisted in the preparation of expert testimony related to merger applications, rate reasonableness proceedings, contract disputes, and other regulatory costing issues before the Interstate Commerce Committee, Surface Transportation Board, Federal Energy Regulatory Commission, Postal Rate Commission, federal courts, and state utility commissions.

Mr. Fisher is sponsoring evidence relating to Phase III URCS costs for the issue traffic movements, the identification of the preferred and alternative comparison groups, the calculation of the presumed maximum lawful rate for each comparison group, the calculation of the Other Relevant Factors, including the Current Rate Adjustment, the Historical PTC Adjustment, the Liability Risk Adjustment, and the Future PTC Adjustment. A copy of Mr. Fisher's verification is attached hereto.

**VERIFICATION**

Benton V. Fisher declares under penalty of perjury that he has read the Opening Evidence that he has sponsored, as described in the foregoing Statement of Qualifications, and that the contents thereof are true and correct to the best of his knowledge and belief.

Executed on February 10, 2012

  
Benton V. Fisher