

BEFORE THE
SURFACE TRANSPORTATION BOARD

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STB Ex Parte No. 431 (Sub-No. 4)

REVIEW OF THE GENERAL PURPOSE COSTING SYSTEM

COMMENTS OF BNSF RAILWAY COMPANY

BNSF joins in the comments of the Association of American Railroads (“AAR”) and submits these supplemental comments in response to the Surface Transportation Board’s (“Board”) Notice of Proposed Rulemaking (“NPRM”) in the above-referenced docket served on February 4, 2013. In the NPRM, the Board has proposed to make some modifications to its general purpose costing system, the Uniform Rail Costing System (“URCS”).

I. INTRODUCTION

In 1989, after years of study and analysis by experts, the Board’s predecessor – the Interstate Commerce Commission (“ICC”) -- adopted URCS as the regulatory costing system to be used to estimate the variable costs of individual rail movements.¹ As the Board recognizes, it is very difficult to develop a costing system that will yield accurate costs for particular rail movements under the myriad of circumstances in which rail traffic moves.² The task of designing such a system is complex and challenging, and requires a great deal of data analysis.

¹ The Comments of the Association of American Railroads (“AAR Comments”) (June 20, 2013) and accompanying verified statement of Messrs. Baranowski and Fisher of FTI (“FTI Statement”) describe in detail the studies that were undertaken to develop URCS.

² *Surface Transportation Board Report to Congress Regarding Uniform Rail Costing System*, at 1 (May 27, 2010) (hereafter “2010 URCS Report”).

For several years the Board has discussed undertaking a review of URCS in an effort to improve the accuracy of the costing system. In a 2010 report to Congress, the Board explained that it saw several different options for reviewing URCS, which ranged from a comprehensive review of the costing system to more limited reviews of various aspects of the costing system.³

In this proceeding, the Board has chosen to undertake a more limited review of URCS perhaps because it does not have the resources to undertake a more comprehensive review at this time. BNSF notes that the costing changes imposed as a result of a limited review of URCS, like this one, may have the unintended consequence of causing inaccuracies to arise in some other aspect of the complicated URCS system that will not become apparent until after the initially adopted changes have been in effect for a while. Thus, it should be recognized that additional changes to URCS may become necessary in the not too distant future to address, at a minimum, any such unintended consequences.

Several of the changes proposed by the Board in this more limited review of URCS relate to the elimination of the make-whole adjustment. The make-whole adjustment was adopted originally to account for the efficiency savings resulting from a rail carrier's transportation of higher-volume shipments by redistributing costs avoided by higher volume shipments (trainloads or unit trains) to lower-volume shipments (multiple car and single-car) so that the rail carrier maintains the same total sum of variable costs across all shipments.⁴ In addition, the Board proposes changes to URCS that are unrelated to the elimination of the make-whole adjustment, including a proposed change to locomotive unit-mile (LUMS) costs.

The changes to URCS proposed by the Board cannot be put into effect based upon the information currently reported by the Class I rail carriers. Consequently, the Board also

³ 2010 URCS Report.

⁴ NPRM at 3.

identifies additional reporting requirements for the Class I rail carriers that are intended to allow for the implementation of the recommended changes to URCS.

BNSF appreciates the Board's efforts to improve the accuracy of variable costs generated by URCS. URCS is a very important tool used in a wide variety of regulatory processes, several of which are specified in the AAR Comments. However, many of the Board's proposed URCS modifications will not achieve the Board's goal of improving the accuracy of URCS's variable costs. In addition to joining in the comments of the AAR, BNSF submits these separate comments on its own behalf to highlight the proposed cost modifications that BNSF believes should not be adopted given their potential to significantly undercut the accuracy of URCS costs for individual rail movements. In several instances, BNSF suggests alternate modifications to those proposed by the Board.

Specifically, BNSF urges the Board to modify its proposed changes to the calculation of switching costs related to Switch Engine Minutes ("SEM") costs, equipment costs for the use of railroad-owned cars during switching ("Railroad-Owned Car Costs"), station clerical costs, and to reject its proposed change to the calculation of locomotive unit mile ("LUM") costs. BNSF also recommends that the Board clarify the definition of "shipment" as it applies to intermodal traffic. BNSF does not oppose the Board's other proposed changes to URCS.

The proposed changes to the SEM costs, Railroad-Owned Car Costs, and station clerical costs are related to the Board's elimination of the make-whole adjustment. As explained further below, BNSF supports alternate proposed adjustments to these costs as specified in the AAR Comments and accompanying FTI Statement. The alternate proposed adjustments eliminate the large drop in URCS costs at the breakpoints between trainload and multiple-car shipments and between multiple-car and single-car shipments, thereby addressing the Board's concern

regarding the effect of the make-whole adjustment. The economies of scale that occur as shipment size increases are reflected in the alternate proposed adjustments and are grounded in the detailed studies undertaken during the development of URCS. In contrast, the Board's proposed adjustments to the SEM costs, Railroad-Owned Car Costs, and station clerical costs are based solely on intuition and not on any current studies of railroad costs and operations.

The Board's proposed changes to the LUM cost calculation are not related to the elimination of the make-whole adjustment since it is not used to assign LUM costs to shipments. The Board proposes to modify the LUM cost calculation in order to reduce the large drop in LUM costs at the breakpoint between a multiple-carload shipment (now a 49-car shipment) and a trainload (now a 50-car shipment). NPRM at 9. However, as further explained below, the Board's proposed adjustment, which involves eliminating weight as a factor in assigning LUM costs and is not based on any current analysis, may not produce the "smooth cost function" that the Board seeks and, more importantly, results in less accurate costs. BNSF agrees with AAR that the Board should not adopt the proposed LUM cost adjustment and instead should continue to develop LUM costs in URCS as is done today, in a manner that accounts for the weight of the train.

With respect to the Board's additional reporting requirements, BNSF does not object to providing the new information specified in the NPRM. However, BNSF echoes the AAR Comments regarding the need to explain how the new URCS rules will be implemented.

II. LIKE THE AAR, BNSF SUPPORTS THE BOARD'S PROPOSAL TO ELIMINATE THE MAKE-WHOLE ADJUSTMENT BUT DISAGREES WITH THE BOARD'S PROPOSED MODIFICATIONS TO THE CALCULATION OF SEM COSTS, RAILROAD-OWNED CAR COSTS, STATION CLERICAL COSTS, AND LUM COSTS

Several of the Board's recommended changes to URCS, including those related to SEM costs, Railroad-Owned Car Costs, and station clerical costs, are related to its proposal to eliminate the make-whole adjustment. While BNSF agrees that the make-whole adjustment should be eliminated, it does not agree with the Board's proposed adjustments to the calculation of SEM costs, Railroad-Owned Car Costs, and station clerical costs because they do not improve the accuracy of the costing system, as further explained below. Rather, BNSF supports the alternate proposed adjustments to those calculations specified in the AAR Comments and attached FTI Statement. BNSF also agrees with the AAR's recommendation that LUM costs continue to be calculated the way they are calculated today.

A. BNSF Supports the Board's Proposal to Eliminate the Make-Whole Adjustment

The purpose of the make-whole adjustment in URCS was to make unit costs more accurate by accounting for the economies of scale that result from larger shipments by redistributing costs from higher volume (unit train) shipments to lower volume (single-car and multiple-car) shipments while maintaining the same total sum of variable costs across all shipments for a particular rail carrier.⁵ BNSF has criticized the make-whole adjustment in the past because that adjustment results in a precipitous and unwarranted drop in the variable costs between a 49-car shipment (considered a multiple-car shipment) and a 50-car shipment (considered a trainload) and also between a 5-car shipment (considered a single-car shipment) and a 6-car shipment (considered a multiple-car shipment). Exhibit FTI-3 to FTI Statement

⁵ NPRM at 3.

which is included with the AAR Comments shows the dramatic drop in variable costs that occurs at these breakpoints. This large difference in costs is of concern because it means that costs on either side of the breakpoint are likely overstated or understated.

In this proceeding, the Board has acknowledged that this huge difference in costs at the breakpoints is a significant concern with the make-whole adjustment. *See* NPRM at 3-4. The Board also expressed a concern about how the make-whole adjustment redistributes the costs avoided due to the economies of scale experienced by higher volume shipments to lower volume (single-car and multiple-car) shipments. *See* NPRM at 4. To address these concerns, the Board proposes to eliminate the make-whole adjustment and, in its place, change how certain system-average unit costs are calculated to “automatically reflect economies of scale as shipment size increases.” NPRM at 4. The system-average unit costs that the Board proposes to change are (1) switching costs related to switch engine minutes (SEM), (2) equipment costs for the use of railroad-owned cars during switching, and (3) station clerical costs.

However, the Board’s proposed changes are not based on any study of the economies of scale that result as shipment size increases. Those changes go too far and fail to properly reflect the efficiencies that result from larger shipments. BNSF supports the alternate proposed adjustments to the system-average unit costs for SEM costs, Railroad-Owned Car Costs, and station clerical costs specified in the AAR Comments. As shown below and in the FTI Statement attached to the AAR Comments, the alternate adjustments eliminate the large drop in costs at the breakpoints while recognizing the economies of scale that result as shipment size increases. Rather than using the extreme economies of scale reflected in the Board’s proposed adjustments (1 car shipment is assigned the same switching costs as 100+ car shipment) which are not based on any studies, the alternate proposed adjustments preserve the economies of scale

derived from the detailed costing studies undertaken by the ICC during the development of URCS.

B. BNSF Supports the Alternate Calculation of Switch Engine Minutes (SEM) Costs Set Forth in the AAR Comments

In conjunction with its proposed elimination of the make-whole adjustment, the Board proposes to modify the allocation of switching costs related to switch engine minutes (SEM) in URCS from the current cost per car approach to a cost per shipment calculation. The Board proposes to define a “shipment” as “a block of one or more cars moving under the same waybill from origin to destination.” NPRM at 5, 13. The Board’s rationale for this modification is not based on any specific study or analysis but rather on the general statement that “a shipment of rail cars is generally connected into a contiguous block of cars prior to loading, and is handled as a contiguous block from origin to destination. As such, the costs to switch a shipment of a four-car block should be the same the costs to switch a shipment of an eight-car block.” NPRM at 5.

1. Alternate SEM Costs Methodology Would Result in More Accurate Costs

The proposal to allocate SEM switching costs based on shipments would assign the same SEM switching costs to a shipment of one car and to a shipment of a 135-car unit train. However, as explained in the FTI Statement at 8-11 submitted with the AAR Comments, the effort associated with switching one car is not the same as the effort associated with switching block of twenty cars, and certainly not the same as the effort involved in switching a 135-car unit train.

In place of the SEM switching cost modification proposed in the NPRM, the AAR Comments present an alternate modification that would preserve the economies of scale associated with higher volume shipments that are reflected in the current URCS methodology but

smooth out the huge difference in costs at the breakpoints that currently result from applying the make-whole adjustment. As explained in the AAR Comments at 3-5, the economies of scale currently reflected in URCS are based on studies undertaken previously by experts working for the ICC, and the results of those studies are the best evidence of such efficiencies until additional studies are undertaken.

As explained by FTI, the efficiencies associated with longer trains that were analyzed in the earlier ICC studies and currently embodied in URCS can be preserved by calculating SEM switching costs based in part on a per shipment approach and in part on a per car approach. Specifically, based on a preliminary analysis of the Carload Waybill Sample, these efficiencies are preserved by accounting for 70% of SEM costs on a per-shipment basis and 30% of SEM costs on a per-car basis. *See* FTI Statement at 11. The FTI Statement explains at page 11 how this alternative approach preserves the efficiencies associated with larger shipments that currently exist in URCS while removing the problematic steep decline in costs at the breakpoints that result from applying the make-whole adjustment.

2. **Modified Definition of “Shipment” for Intermodal Traffic**

Another modification to the Board’s proposed SEM cost methodology must be made to the definition of “shipment” as it applies to intermodal traffic. As mentioned above, the Board proposes to calculate SEM costs on a “per shipment” basis and to define “shipment” as “a block of one or more cars moving under the same waybill from origin to destination.” *See* NPRM at 5. BNSF’s alternate proposal for calculating SEM costs also assigns a portion of SEM costs on a “per shipment” basis. Consequently, it is important that “shipment” is defined properly and, for intermodal traffic, it is not. BNSF does not oppose this definition of “shipment” for carload

traffic, although, as AAR notes, the shipper provides the information for the waybill and, thus, determines how many cars appear on each waybill.

Intermodal traffic moves in containers or trailers that are placed on flatcars. Several containers or trailers are loaded onto each flatcar. In 2012, BNSF had an average of 5.29 containers or trailers on each flatcar.⁶ As the ICC recognized, each intermodal container or trailer typically moves under a separate waybill even if the containers are placed on flatcars that move in multiple-flatcar blocks. *See* EP 431 (Sub-No. 2) at 4, n. 14 (served Oct. 1, 1997). In other words, the waybills created for intermodal traffic identify the container, not the flatcar that the container is placed on, and certainly do not identify all the intermodal flatcars that move together as a block from origin to destination. It is unclear how the Board's proposed definition of "shipment" as "a block of *one or more cars* moving under the same waybill from origin to destination," would apply to intermodal traffic given how that traffic is waybilled. It could arguably be read as considering each flatcar of intermodal traffic to be a separate "shipment" for purposes of calculating SEM costs. But this reading does not result in more accurate costs because it does not reflect actual operations as intermodal traffic typically moves in multiple-car blocks of flatcars.

The ICC recognized that intermodal traffic more closely resembles trainload movements than single-car movements. *See* EP 431 (Sub-No. 2) at 4, 5 (served Oct. 1, 1997). It follows that multiple flatcars of intermodal traffic are typically switched together. The Board's current treatment of intermodal shipments under URCS also reflects a recognition that intermodal traffic is typically switched in blocks of more than a single flatcar. As explained in the FTI Statement at 12, each intermodal flatcar currently receives 25% of the costs associated with an originating and terminating switch. In other words, under URCS as it operates today, 100% of the costs of

⁶ *See* BNSF R-1, Schedule 755 for year 2012.

an originating and terminating switch would be assigned to four intermodal flatcars, suggesting that intermodal shipments consist of at least four flatcars.

BNSF's own experience is that a much higher number of intermodal flatcars are typically switched together. In 2012, the average number of flatcars moving together as a block on BNSF intermodal trains from origin ramp to destination ramp was approximately 12 flatcars.⁷ That number may vary from year to year and across rail carriers.

If SEM costs are going to be assigned at least in part on a "per shipment" basis, the Board should undertake a special study to determine how to define intermodal shipments. If the Board is not inclined to undertake such a special study, the Board should require each Class I carrier to report annually the average number of intermodal flatcars moving together as a block from origin ramp to destination ramp and use this reported number, annualized over three years, as that Class I rail carrier's number of flatcars in a "shipment" of intermodal traffic. At a minimum, given the way URCS operates today, the Board should define an intermodal shipment in a manner that is consistent with how URCS does so today.

3. Intraterminal and Interterminal Switching Should be Eliminated from URCS

In the NPRM, the Board does not discuss intraterminal and interterminal switching other than to mention that such switching is accounted for in URCS in the SEM cost calculation. *See* NPRM at 5. For the reasons set forth in the FTI Statement at 13-14, BNSF joins the AAR in recommending to the Board that URCS should not assign any switch engine minutes to interterminal and intraterminal switching when calculating SEM unit costs. As explained in the FTI Statement, unless interterminal and intraterminal switching are removed from URCS, certain

⁷ The facts regarding BNSF's intermodal traffic have been verified by Scott T. Long, Senior Manager Regulatory Cost at BNSF.

portions of rail carriers' actual switching costs will never be assigned to rail movements and, as a result, total URCS costs will understate the rail carriers' actual total costs. *See* AAR Comments at 20; FTI Statement at 13-14.⁸

C. **BNSF Supports the Alternate Calculation of Railroad-Owned Car Costs Set Forth in AAR Comments**

Also in connection with its proposed elimination of the make-whole adjustment, the Board proposes to modify the system-average unit costs associated with switching as it pertains to equipment costs for the use of railroad-owned cars. While the Board proposes to continue to calculate these costs on a per car basis in Phase II of URCS, it proposes that the costs for use of the Railroad-Owned Cars not receive an adjustment in Phase III of URCS “because it does not appear that there are efficiencies associated with these costs.” NPRM at 6. As FTI explains, this means that the current URCS reductions in switching time for railroad-owned cars will be eliminated. *See* FTI Statement at 14-16. But the efficiencies that the Board says do not appear to exist were identified in special studies undertaken by the ICC. *See* FTI Statement at 14-16. In contrast, the Board’s proposal to eliminate these efficiencies in calculating Railroad-Owned Car Costs is based on mere surmise.

Rather than adopt the Board’s proposal regarding Railroad-Owned Car Costs, BNSF proposes that the Board adopt the alternate methodology set forth in the AAR Comments and FTI Statement.⁹ Specifically, BNSF supports calculating Railroad-Owned Car Costs the same way that SEM costs are calculated – with a percentage being accounted for on a per-shipment

⁸ The Board should also correct the technical error in the calculation of switching costs related to the I&I switching intervals discussed in the AAR Comments at 20-21 and accompanying FTI Statement at 20.

⁹ *See* AAR Comments at 16; FTI Statement at 14-16.

basis and a percentage being accounted for based on a per-car basis -- so that the efficiencies recognized in the special studies undertaken by the ICC will be preserved.¹⁰

D. **BNSF Supports the Alternate Calculation of Station Clerical Costs Set Forth in the AAR Comments**

Related to its proposed elimination of the make-whole adjustment, the Board also proposes to modify the allocation of station clerical costs in URCS the same way it proposes to treat SEM costs – by changing from the current cost “per car” approach to a cost “per shipment” calculation. *See* NPRM at 6-7. As a result, the station clerical costs will be the same irrespective of the number of cars in the shipment -- a 1-car shipment will be assigned the same station clerical costs as a 135-car shipment. Again, the Board does not rely on any data analysis for this proposed change. It simply asserts that it is concerned that the current “per-car” approach “does not properly reflect actual railroad operations or economies of scale. [The Board] believe[s] that, operationally, there is little difference in the administrative costs between shipments of different sizes.” NPRM at 7.

BNSF proposes to adopt the alternate methodology for calculating station clerical costs set out in the AAR Comments and supporting FTI Statement.¹¹ This alternate methodology would treat station clerical costs the same way SEM costs are treated – with a percentage of Station Clerical costs being accounted for on a per-shipment basis and a percentage of those costs being accounted for on a per-car basis. As explained in the FTI Statement at 16-17, this alternative approach preserves the economies of scale associated with higher volume shipments that are currently reflected in URCS but smoothes out the huge, inaccurate drop in costs at the breakpoints that now result from applying the make-whole adjustment. The economies of scale

¹⁰ FTI Statement at 14-16.

¹¹ *See* AAR Comments at 14-15; FTI Statement at 16-17.

currently reflected in URCS are based on previous determinations made by the ICC,¹² and they represent the best evidence of such efficiencies until new studies are performed.

E. BNSF Joins in AAR's Recommendation to Continue Using the Current URCS Methodology to Develop LUM Costs

The Board also proposes to change the calculation of LUM costs. These costs consist primarily of locomotive ownership, maintenance, and a portion of fuel costs. Currently the make-whole adjustment is not used to develop LUM costs in URCS and, consequently, the Board's proposed change to the calculation of LUM costs is unrelated to its decision to eliminate the make-whole adjustment. The Board's expressed desire to modify the calculation of LUM costs is based upon its concern that under the current URCS methodology there is a large drop in LUM costs at the breakpoint between a multiple-carload shipment (49-car shipment) and a unit train (50-car shipment). NPRM at 9.

The specific changes that the Board proposes to the LUM cost calculations are: (1) for unit trains, it proposes to remove the scaling adjustment that modifies LUM costs per train based on the ratio of the average weight of the shipment to the average weight of a system-average unit train and to assign instead the unit train system-average consist cost per mile to all unit trains. *See* NPRM at 9. This proposed change has the effect of decreasing LUM costs for heavier unit trains and increasing the costs for lighter unit trains.¹³ (2) for non-unit trains, it proposes to change the allocation of LUM costs from the current approach which compares the gross tons of the shipment to the system-average gross tons of way and through trains to an approach that compares the number of cars in the shipment to 80 cars. *See* NPRM at 9-10. However, as explained in the FTI Statement, since BNSF's system-average way and through trains typically

¹² FTI Statement at 16-17.

¹³ FTI Statement at 21-24.

have fewer than 80 cars,¹⁴ this proposed change has the effect of improperly reducing BNSF's LUM costs with the result that BNSF's locomotive costs will be understated. FTI Statement at 25-26.

Like the AAR, BNSF requests the Board to continue to use its current URCS methodology for calculating LUM costs. BNSF opposes the Board's proposal to modify the calculation of LUM costs for several reasons. First, the Board has presented no analysis or study showing that the elimination of weight as a factor in developing LUM costs will result in more accurate URCS costs. The long-standing assumption in URCS is to the contrary -- that heavier trains on average incur higher locomotive costs than lighter unit trains. It is only logical that heavier unit trains would be assigned more horsepower than lighter unit trains, resulting in increased locomotive costs.

Second, as explained in the FTI Statement, the Board's proposed LUM cost adjustments are not related to the Board's articulated concern about the current LUM cost methodology, *i.e.* that it causes a large drop in LUM costs at the breakpoint between a unit train (50-car shipment) and a multiple-car shipment (49-car shipment). That drop results from the fact that the Board uses a different number of locomotives to calculate LUM costs for unit trains than it uses to calculate LUM costs for non-unit trains (*i.e.*, multiple-car and single-car movements). *See* FTI Statement at 23.

Third, as explained in the FTI Statement at 25-26, the Board's proposal to assign LUM costs to non-unit trains based upon an assumed 80-car train length is improper because the average train length for BNSF's non-unit trains is substantially less than 80-cars. Thus, using

¹⁴ In 2011, BNSF system-average through train was 51 cars and system-average way train was 31 cars. *See* FTI Verified Statement at 25.

this 80-car assumption would improperly reduce the LUM costs assigned to non-unit trains and result in the under statement of BNSF locomotive costs. *See* FTI Statement at 25-26.

III. **ADDITIONAL REPORTING REQUIREMENTS**

With respect to the Board's additional reporting requirements, BNSF does not object to providing the new information specified in the NPRM. If adopted, BNSF's preferred method for modifying the definition of "shipment" for intermodal traffic would require additional reporting.

However, BNSF agrees with the AAR that the Board must explain how the newly reported data will be utilized and how the Board will implement the new URCS rules, particularly in light of the necessity for a transition in multi-year applications of URCS calculations.

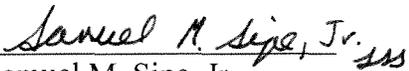
IV. **CONCLUSION**

If the Board is unable or unwilling to undertake new studies as the basis for proposed changes to URCS, it should adopt the alternate methodology for calculating SEM costs, Railroad-Owned Car Costs, and station clerical costs described above. It should also adopt the definition of "shipment" as it applies to intermodal traffic described above. Finally, the Board

should reject its proposed change to URCS LUM cost calculations and continue to calculate LUM costs using the current URCS methodology.

Respectfully Submitted,

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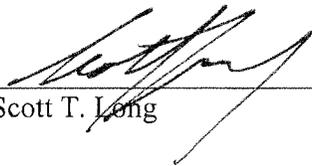
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June 20, 2013

VERIFICATION

I, Scott T. Long, Senior Manager Regulatory Cost at BNSF Railway Company, declare under penalty of perjury that I have read the foregoing Comments of BNSF Railway Company and that the facts regarding BNSF's intermodal traffic set forth therein are true and correct. Further, I certify that I am qualified and authorized to file this verification.

Executed on June 20, 2013



Scott T. Long