**BEFORE THE**
**SURFACE TRANSPORTATION BOARD**

**Ex Parte No. 431 (Sub No. 4)**

**REVIEW OF THE GENERAL PURPOSE COSTING SYSTEM**

# JOINT REPLY COMMENTS OF THE AMERICAN CHEMISTRY COUNCIL; THE CHLORINE INSTITUTE; THE FERTILIZER INSTITUTE; AND THE NATIONAL INDUSTRIAL TRANSPORTATION LEAGUE

## I. INTRODUCTION AND SUMMARY

The American Chemistry Council, The Chlorine Institute, The Fertilizer Institute, and The National Industrial Transportation League (collectively the "Interested Parties") hereby submit these Joint Reply Comments in the above-captioned proceeding. The Surface Transportation Board ("STB" or "Board") initiated this proceeding in a February 4, 2013 Notice of Proposed Rulemaking ("Notice"), which was supplemented by an April 25, 2013 decision. On June 20, 2013, the Board received Opening Comments from multiple stakeholders, including the Interested Parties, several other shipper interests, the Association of American Railroads ("AAR"), Union Pacific Railroad ("UP"), and BNSF Railway Company ("BNSF"). The Interested Parties hereby reply to those Opening Comments. These Reply Comments are supported by the attached Reply Verified Statement of Robert D. Mulholland, Vice President of L.E. Peabody & Associates, Inc. ("Mulholland R.V.S."), who also submitted a verified statement as part of the Interested Parties' Opening Comments.

In the Notice, the Board has proposed to adjust how the Uniform Railroad Costing System ("URCS") calculates certain system-average unit costs with the intent to better reflect

railroad operations and to automatically reflect economies of scale as shipment size increases, without needing to apply the so-called "make-whole" adjustment that is part of the current URCS formulation. The Board also has proposed various other changes to URCS in order to produce more accurate movement costs.

The most notable aspect of the Opening Comments is the similarity of the message conveyed by both shipper and railroad interests. They are uniformly concerned that the Board's proposals are unsupported by any empirical analysis, untested, and in several instances are predicated upon flawed assumptions that will distort the URCS calculations and lead to less accurate results. The railroad commenters, however, go beyond the shipper comments by offering alternative proposals to the Board in selected areas. Through Witness Mulholland, the Interested Parties have reviewed the railroad alternatives in this Reply and concluded that those alternatives are inappropriate and unnecessary because they have not been shown to be any more accurate than the current URCS model and they have been developed with the intent of producing similar results to the current model. When the objective of a new model is to replicate the results of the existing model, there is no reason to adopt the new model. Furthermore, the proposed new models would be less accurate because they demonstrably deviate from their target result.

While the Interested Parties support the Board's efforts to make the URCS program more accurate, the Board first must identify where the existing model is inaccurate in order to know where changes are appropriate. The Board cannot do that without collecting and evaluating pertinent data. This is true for both the Board's proposals and those of the railroad commenters. The current URCS model was developed after consideration of vast volumes of data and empirical analyses. The assumptions and assertions based upon intuition in the Notice, most of

which already have been shown to be inaccurate by the opening comments, cannot substitute for that ground work. Therefore, the Interested Parties urge the Board to discard its proposals and return to the drawing board by gathering essential data and performing empirical analyses to develop proposals that truly are designed to first identify, and then correct, demonstrated inaccuracies in the existing URCS program.

## II. RAILROADS AND SHIPPERS HAVE EXPRESSED VERY SIMILAR VIEWS OF THE BOARD'S PROPOSALS.

On Opening, the Interested Parties expressed great concern that the Board's proposals had not been more fully developed and analyzed through testing and empirical analysis.[1] That concern was magnified by the fact that current URCS formulas were developed through structured and methodical studies and then tested and validated using empirical data, whereas the Board's proposed changes are based solely upon unproven assumptions and untested assertions based solely on intuition.[2] Furthermore, the Interested Parties demonstrated that the potential impact of the Board's proposals could be quite significant and were inconsistent with expectations previously expressed by the Board, in a May 27, 2010 report to Congress, that the make-whole adjustment was causing an upward distortion of single-car variable costs.[3]

The railroad commenters independently raised nearly all of the same concerns as the Interested Parties:

- "[S]ome of the NPR's proposals would change long-standing costing inputs and assumptions derived from detailed railroad industry special studies. While those studies may be dated, the proposals in the NPR are not supported by any empirical evidence that show that the changes would result in more accurate costs. In those instances, the AAR submits that the best solution would be to conduct special studies to establish accurate cost relationships."[4]

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[1] Interested Party Comments at 2, 5-7, 11-12.
[2] *Id.* at 6-7, 11-12.
[3] *Id.* at 5-6.
[4] AAR Comments at 7.

- "[T]he AAR is concerned that in seeking to eliminate the step-function effect, the NPR proposes to replace the fundamental bases on which URCS relies to account for the added efficiencies of trainload/unit train and multi-car shipments. In their place, the NPR offers little more than general observations and intuition to support its proposals, in violation of the RAPB's causality principle that requires an empirical basis for the costing model and the ICA's requirement for accurate costing information."[5]

- "The NPR's proposals retreat from the fundamental conclusion that URCS should rely on empirical data regarding engineering relationships and special studies."[6]

- "UP is concerned that many of the Board's proposals lack empirical support, so there is no reason to believe their adoption would produce more accurate costing results. In fact, UP believes that most of the proposed changes would produce less accurate results."[7]

- "UP is not aware of any empirical evidence supporting the proposition that switching for single-car shipments has become less efficient relative to system average costs. To the contrary, in the Board's 2010 report to Congress regarding potential modifications to URCS, the Board proposed revisiting the make-whole adjustment in response to concerns 'that the current method' was producing 'an upward distortion of the single-car shipment variable costs.' In fact, the Board contemplated making revisions to the make-whole adjustment that 'would result in smaller cost reductions for the volume shipments...and smaller cost additions to the single-car shipments.' The NPRM does not explain why the Board's proposal would produce results so different from those the Board anticipated in its report to Congress."[8]

- "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."[9]

- "[M]any of the Board's proposed URCS modifications will not achieve the Board's goal of improving the accuracy of URCS's variable costs."[10]

The similarities extend to individual comments on each of the Board's separate proposals. For example, the Interested Parties observed that the Board's definition of a

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[5] *Id.* at 10.
[6] *Id.* at 11.
[7] UP Comments at 2.
[8] *Id.* at 7, *quoting Surface Transportation Board Report to Congress Regarding the Uniform Rail Costing System*, p. 19 (May 27, 2010) (footnotes omitted).
[9] BNSF Comments at 2.
[10] *Id.* at 3. *See also*, page 5 (explicitly referencing SEM costs, railroad-owned car costs, and station clerical costs).

"shipment" was unclear and that the use of waybills to identify individual shipments was inconsistent with actual railroad operations.[11] The railroad commenters raised similar concerns:

- "[T]he AAR has concerns that the proposal to rely on a purely per-shipment basis creates some ambiguity as to the definition of a shipment for both carload and intermodal traffic...."[12]
- "Should the Board move to a per-shipment cost allocation model, it is crucial that the Board clearly articulate what constitutes a discrete shipment and consider the implications of that definition."[13]
- "[H]ow the traffic moves operationally and how it is waybilled are not necessarily synonymous...The waybill is based on information that originates from the shipper and does not necessarily reflect how the traffic moves operationally."[14]
- "[I]t 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."[15]

The Interested Parties observed that the Board's logic as to switch engine minute ("SEM") costs was faulty, because switching costs do in fact increase as block size increases, which is contrary to the Board's assumption that SEM costs would be the same regardless of shipment size.[16] The Interested Parties also noted that the Board incorrectly treats station clerical costs solely as a function of the shipment.[17] The railroad parties uniformly agreed that SEM and clerical costs are not solely functions of the shipment, and thus they oppose the Board's proposals for SEM and clerical costs:

- "The Board appears to believe that switching costs would always be equal for shipments of all sizes, though the NPR provides no rationale for that belief. In reality, the time required to perform switching activity will be impacted by the number of cars being

[11] Interested Party Comments at 7-8.
[12] AAR Comments at 13.
[13] *Id.*
[14] *Id.* at 14.
[15] BNSF Comments at 8-9.
[16] Interested Party Comments at 8.
[17] *Id.*

switched...The AAR submits that the Board should undertake special studies to develop the data necessary to accurately reflect the costs of different volume shipments."[18]

- "The proposal to move from a purely per-car allocation of SEM switching costs and station clerical costs appears to rest on the faulty proposition that such costs will be equal regardless of how many cars are in a given shipment. The NPR asserts, without foundation, that accounting for SEM switching and station clerical costs on a per-shipment rather than on per-car basis will more accurately reflect the efficiencies associated with higher volume shipments...Switching a block of 40 cars will result in higher costs than switching a block of two cars."[19]

- "[T]he effort associated with switching one car is not the same as the effort associated with switching [a] block of twenty cars, and certainly not the same as the effort involved in switching a 135-car unit train."[20]

- "UP disagrees with the Board's proposal to calculate SEM costs and station clerical costs solely on a per-shipment basis....The Board's proposals ignore the realities of railroad operations and will significantly change URCS's costing results, even though there is no evidence that the changes will improve the accuracy of URCS."[21]

- "[I]t generally takes longer to switch more cars, even if they are moving together in a single block."[22]

- "Although there are economies of scale with regard to some clerical costs when multiple cars are shipped under a single waybill, the expenses that URCS treats as station clerical costs include many costs that vary with the number of carloads handled by a railroad, rather than the number of waybills processed by a railroad."[23]

The Interested Parties and all railroad commenters similarly agree that the Board's proposal to eliminate the recognition by URCS of certain efficiencies that apply to car ownership costs when switching multi-car and trainload shipments in railroad-owned cars would in fact make URCS less accurate.[24] Because those efficiencies previously were identified in special studies, the Board's contrary intuition does not provide an adequate basis for modification.

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[18] AAR Comments at 12.
[19] *Id.* at 15-16.
[20] BNSF Comments at 7.
[21] UP Comments at 3-4
[22] *Id.* at 4.
[23] *Id.* at 10.
[24] *See* Interested Party Comments at 9; AAR Comments at ;17 UP Comments at 11-12; BNSF Comments at 11.

The Interested Parties argued that that the Board's proposal to base the adjustment to locomotive unit mile ("LUM") costs for non-trainload movements on a standard 80-car train rather than on the actual system average way and through train statistics is predicated upon flawed logic and would create a serious disconnect between the actual non-trainload characteristics upon which the URCS Phase II unit costs are calculated and the assumed non-trainload characteristics upon which those costs are allocated in Phase III.[25] All three railroad commenters agreed:

- "[S]ince BNSF's system-average way and through trains typically have fewer than 80 cars, this proposed change has the effect of improperly reducing BNSF's LUM costs with the result that BNSF's locomotive costs will be understated....Like the AAR, BNSF requests the Board to continue to use its current URCS methodology for calculating LUM costs."[26]

- "Similarly, the NPR does not explain why the current URCS approach of allocating locomotive unit-mile costs by the relative weight of the shipment to the average weight of way and through trains is inaccurate or otherwise incorrect."[27]

- "UP strongly opposes the Board's two proposed modifications to how URCS currently allocates LUM costs (primarily, locomotive ownership, fuel, and maintenance costs). Both proposed modifications would reduce the accuracy of URCS."[28]

The Interested Parties noted that the Board's proposal to increase the demarcation point for trainload shipments from 50 to 80 cars was purely anecdotal and urged the Board to perform a study to more accurately determine the point at which shipments are transported as trainload movements, and the variability across commodities and regions.[29] Without comment, the AAR merely states that it "does not object" to this proposal.[30] UP also does not object, but notes that it "does have a significant number of trainload movements that occur as shipments of fewer than

[25] Interested Party Comments at 10-11.
[26] BNSF Comments at 13-14.
[27] *Id.* at 19.
[28] UP Comments at 14.
[29] Interested Party Comments at 10.
[30] AAR Comments at 7 (n. 12).

80 cars."[31] BNSF does not expressly address this proposal, but elsewhere states that "the average train length for BNSF's non-unit trains is substantially less than 80-cars."[32] These are hardly ringing endorsements of the Board's proposal, and in fact demonstrate that this modification is unsupported.

Although the Interested Parties and the three railroad commenters all criticized the Board's rationale for increasing the assumed miles for inter- and intra-train ("I&I") switching, their reasons varied. The Interested Parties noted several flaws in the Board's reasoning that could not support the proposed change and asserted that the Board must conduct a special study before making any changes.[33] The AAR also criticized the Board's reasoning on alternative grounds and urged a special study.[34] UP criticized the Board's reasoning on the same grounds as the AAR, but advocated for a 250 mile presumption, based upon an internal UP study, rather than the Board's proposal of 320 miles, and proposed that the Board use actual carrier data for other railroads too.[35] BNSF did not specifically comment on this proposal but appears to have adopted the AAR's position.[36] Witness Mulholland observes that, because the URCS Phase III program allocates the URCS Phase II I&I switching unit cost on a per-mile basis, changing the assumed miles between switch events will have only a minimal impact on the resulting statement of I&I costs. Therefore, unless the actual mileage is known, changing from the current standard is not justified.[37]

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[31] UP Comments at 14. UP's position also is predicated upon the Board using actual operating characteristics when costing a limited number of movements, such as in rate cases. But that would constitute an impermissible movement-specific adjustment.
[32] BNSF Comments at 14.
[33] Interested Party Comments at 9-10.
[34] AAR Comments at 19-20.
[35] UP Comments at 13.
[36] BNSF Comments at 1.
[37] Mulholland R.V.S. at 14.

One area where the parties have taken more divergent positions concerns the Board's proposal to use the system average empty-return ratio for trainload shipments. The Interested Parties asserted that it is not possible to assess this proposal unless and until the Board attempts to determine the ratio of the equipment type used in unit train service versus non-unit train service;[38] UP whole-heartedly endorsed this proposal;[39] AAR "does not object" to the proposal;[40] and BNSF was silent. Because this proposal is not based on any studies, and relies completely on unproven assumptions, the Interested Parties continue to object to its adoption.[41]

## III. THE RAILROAD ALTERNATIVE PROPOSALS ARE INAPPROPRIATE AND LESS ACCURATE.

Despite substantial agreement between the Interested Parties and the railroad commenters in their comments upon the Board's proposals, there remain some important differences. The principal difference is that the Interested Parties object to the alternative modifications offered by the AAR and UP for calculating SEM costs, station clerical costs, and equipment costs for the use of railroad-owned cars. In addition, the Interested Parties oppose AAR's efforts to expand this proceeding to issues not raised in the Notice.[42]

To be clear, the railroad commenters do not in fact advocate for the adoption of their alternative proposals for calculating SEM costs, station clerical costs, and equipment costs for the use of railroad-owned cars. For example, AAR's principal position is "that the Board...undertake special studies to develop the data necessary to accurately reflect the costs of different volume shipments."[43] The AAR asserts, however, that, if the Board is intent upon eliminating the step-function of the make-whole adjustment, it should "focus on retaining the

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[38] Interested Party Comments at 9.
[39] UP Comments at 12.
[40] AAR Comments at 7 (n. 12).
[41] *See* Mulholland R.V.S. at 13-14.
[42] AAR Comments at 20-21.
[43] *Id.* at 12.

original engineering and special study relationships built into URCS wherever practical, while eliminating the step-function effect associated with the make-whole adjustment.[44]

Similarly, UP offers its alternative proposals only "[i]f the Board is determined to eliminate the break points associated with the make-whole adjustment but is unwilling or unable to gather the evidence necessary to re-evaluate the relative efficiencies of single-car, multi-car, and unit trains shipments."[45] Notably, UP does not perceive any need to eliminate these break points, which UP describes as "a largely inconsequential quirk associated with the make-whole adjustment...."[46] Rather, UP offers the Board an alternative means to do so, if the Board insists upon pursuing the objective of eliminating the break points.

The Interested Parties do not agree that either the AAR or UP alternatives for calculating SEM costs, station clerical costs, and equipment costs for the use of railroad-owned cars offers are appropriate or accurate. Indeed, both proposals suffer from the same fundamental flaw as the Board's own proposals, in that they are not demonstrated to be more accurate than the current URCS model. The details of this critique are set forth in Witness Mulholland's Reply Verified Statement.

The AAR alternative, which BNSF has endorsed, would calculate Phase III SEM, and railroad-owned equipment costs on both a shipment and carload basis using a 70/30 split. [47] AAR would use a "similar" but undefined split for clerical costs.[48] AAR designed its model to "retain[], to the extent practical, the current URCS allocations as they are based on existing studies and are the best evidence of such efficiencies."[49] As illustrated by this statement and

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[44] *Id.* at 12-13.
[45] UP Comments at 8.
[46] *Id.* at 7.
[47] Mulholland R.V.S. at 6, 13.
[48] *Id.* at 12. AAR Comments at 16.
[49] Mulholland R.V.S. at 6-7, *quoting* Baranowski/Fisher V.S. at 11.

proven by AAR's work papers, this model is not really an alternative at all, but rather, it is a different way to arrive at an aggregate result that approximates the aggregate result produced by the current URCS model.[50] Moreover, it is not very effective at even doing that because it was developed from a single year of data for just BNSF.[51] Furthermore, on a movement-by-movement basis, the model results in cost-shifting between terminal and interchange switching activities, and among different service types.[52] The model also depends upon an entirely unproven assumption that every railroad averages precisely ten flat cars per intermodal shipment.[53] Because the results of the AAR model can only be verified when compared against—and calibrated to replicate—the results of the current URCS model, it is unnecessary, at best, and at worst, it produces less accurate results.[54]

The UP model suffers from the same flaw as the AAR model because it also attempts to replicate the results of the current URCS model. Although UP takes a conceptual approach that is similar to the AAR model, UP's approach does not actually eliminate the make-whole and related efficiency adjustments, which actually makes the UP model more complex.[55] Nor has UP demonstrated that its model will produce more accurate results. UP actually acknowledges the flaws in its model but offers it simply because its "approach would better reflect the realities of railroad operations than the Board's proposal."[56] As with the AAR model, the UP model is unnecessary because its effectiveness can only be known if a control model (*e.g.* the existing URCS model) is used to calibrate its results.[57]

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[50] *Id.* at 7.
[51] *Id.*
[52] *Id.* at 8.
[53] *Id.* at 9.
[54] *Id.* at 9-10.
[55] *Id.* at 10-11.
[56] UP Comments at 9-10.
[57] Mulholland R.V.S. at 11.

Finally, the AAR, supported by BNSF, attempts to expand this proceeding in two respects. First, they ask the Board to eliminate the allocation of inter- and intra-terminal switching activity to SEM within URCS Phase II.[58] AAR contends that these costs are never recovered because these costs are allocated to SEM costs in URCS Phase II but not to individual shipments in Phase III. However, this is not a problem from a theoretical standpoint. These Phase II inter- and intra-terminal switching costs are not allocable to a specific movement and therefore not included in the Phase III variable cost calculation. The AAR wants to remove the Phase II inter- and intra-terminal step which would artificially increase the switching unit costs for the other switching categories as a way to impose an across-the-board switching additive into the Phase III allocation process.[59] Stated differently, the AAR wants to increase the Phase III switching costs for all switching categories by failing to recognize the inter- and intra-terminal switching activities in Phase II.

Second, AAR and BNSF purport to identify a technical error in the calculation of switching costs related to the I&I switching intervals for intermodal traffic which they contend under-allocates SEM costs and understates Phase II switching unit costs for all types of events.[60] They propose alterations to the URCS Phase II algorithms to correct this alleged mismatch. But this is precisely the type of piece-meal adjustment to URCS that can have distorting downstream consequences. The variables that Baranowski/Fisher rely upon to quantify this alleged misstatement of costs were developed decades ago and may be just as inaccurate as the formula components they claim should be modified.[61] Modifying the formula components without also modifying the variables would not produce more accurate results.

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[58] AAR Comments at 20.
[59] Mulholland R.V.S. at 17.
[60] AAR Comments at 20-21.
[61] Mulholland R.V.S. at 18.

## IV. CONCLUSION

Railroad and shipper interests alike agree that the Board's proposals in the Notice are not sufficiently supported to warrant adoption of those changes to the existing URCS model. In particular, they all agree that the Board must conduct studies and empirical analyses to demonstrate that its proposals would produce more accurate results than the existing URCS formulas, which were developed after detailed studies and extensive testing to validate their results. They also agree that many of the Board's assumptions simply are wrong.

The railroad parties, however, have offered alternative proposals for SEM, clerical, and railroad-owned equipment costs, if the Board is unable or unwilling to perform the special studies and empirical analyses that all commenters have agreed are essential. The Interested Parties object to those alternatives for many of the same reasons as they and the railroads themselves have objected to the Board's proposals, namely, they are not proven to be any more accurate than the current URCS model. Even if the AAR and/or UP model is better than the Board's proposals, this is not a situation where the Board must pick one. Just because one bad option may be better than another bad option does not make the better option a good one.

Therefore, the Interested Parties contend that the Board should not adopt its proposals or either of the AAR or UP proposals. Nor should the Board expand this proceeding to the additional issues raised by the AAR.

Respectfully submitted,

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September 5, 2013

## Certificate of Service

I hereby certify that on 5th day of September 2013, a copy of the foregoing "Joint Reply Comments of the American Chemistry Council; The Chlorine Institute; The Fertilizer Institute; and The National Industrial Transportation League" was served by electronic delivery on all known parties of record in this proceeding.

Jeffrey O. Moreno

BEFORE THE

SURFACE TRANSPORTATION BOARD

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| **Docket No. EP 431 (Sub-No. 4)** | ) | **Review of the General Purpose Costing System** |

Reply Verified Statement

Of

Robert D. Mulholland

Vice President

L.E. Peabody & Associates, Inc.

On Behalf Of

The Interested Parties

Filed: September 5, 2013

## TABLE OF CONTENTS


I. Introduction ..... 1

II. Summary of Parties' General Positions ..... 3

A. Make-Whole and Efficiency Adjustments and Shipment Reporting ..... 3

B. URCS Switch Engine Minute ("SEM") Costs ..... 5

C. URCS Station Clerical Costs ..... 12

D. URCS Railroad Owned Car Equipment Costs Incurred During Switching ..... 13

E. Empty / Loaded Ratio ..... 13

F. Change I&I Switching Event Frequency Mileage From 200 To 320 ..... 14

G. Change the Definition of Trainload from 50 to 80 Cars ..... 15

H. Allocation of Locomotive Unit-Mile ("LUM") Trainload Costs ..... 15

I. Allocation of Locomotive Unit-Mile ("LUM") Non-trainload Costs ..... 16

J. Items Raised But Not in Board's Proposal ..... 17

III. Conclusion ..... 20

## I. INTRODUCTION

I am Robert D. Mulholland, economist and a Vice President of L. E. Peabody & Associates, Inc. I am the same Robert D. Mulholland who submitted an Opening Verified Statement in this proceeding on June 20, 2013. A copy of my credentials is included as Exhibit No. 1 to my Opening Verified Statement.

My Opening Verified Statement addressed the Surface Transportation Board's ("STB" or "Board") proposal to modify its rules related to various aspects of its Uniform Railroad Costing System ("URCS") as identified in *EP 431-4*.[1] Specifically, on February 4, 2013, the STB served a Notice of Proposed Rulemaking ("NPR") which outlined its proposals to: (1) modify certain input data for Phase II of URCS, (2) revise the methodology to calculate certain unit costs, and (3) modify certain procedures in the URCS Phase III costing program to calculate variable costs. The STB seeks to eliminate the efficiency adjustments applied to trainload and multiple car movements and the offsetting "make-whole" factors applied to single car and multiple car movements for certain activities.

I have been requested by counsel for The American Chemistry Council, The Chlorine Institute, The Fertilizer Institute, and The National Industrial Transportation League (collectively the "Interested Parties") to address the Opening Comments of the AAR, BNSF, and UP (collectively "the railroads") dated June 20, 2012.[2]

Below, I discuss the proposed changes to URCS included in the STB's NPR under the following topical headings:

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[1] STB Docket No. EP 431 (Sub-No. 4), *Review of the General Purpose Costing System*, served February 4, 2013 ("*EP 431-4*").

[2] I address the comments of the Association of American Railroads ("AAR") and the Reply Verified Statement of Michael Baranowski and Benton Fisher ("Baranowski VS") included with the AAR's Reply Comments, the Reply Comments of the Union Pacific Railroad Company ("UP"), and the Reply Comments of the BNSF Railway Company ("BNSF").

II. Summary of Parties' General Positions
III. Conclusion

## II. SUMMARY OF PARTIES' GENERAL POSITIONS

The railroads filed comments in response to the STB's proposed changes to URCS as articulated in Decisions served on February 4, 2013 and April 25, 2013 in *EP 431-4*. Their comments included critiques of the STB's proposed changes and posited potential alternate changes which they claim would achieve some of the Board's stated objectives. BNSF's filing included an endorsement of the proposals in the AAR comments, while UP submitted its own independent proposals. The AAR comments were further supported by the Verified Statement of Michael Baranowski and Benton Fisher.

In addition to the Interested Parties, several other shipper groups filed comments. They are: Western Coal Traffic League ("WCTL"), Alliance for Rail Competition ("ARC"), et al, and Arkansas Electric Cooperative Corporation ("AECC"). The United Transportation Union ("UTU")-New York State Legislative Board and the Tom O'Connor Group filed comments as well.

Many portions of the railroads' comments were similar to those filed by shippers and other interested parties. Specifically, the parties generally agree that most of the Board's proposed changes have not been developed based on empirical analysis, are not sufficiently supported, and should not be implemented as proposed. However, there are a few areas of disagreement among the commenting parties. These are discussed in detail below.

### A. MAKE-WHOLE AND EFFICIENCY ADJUSTMENTS AND SHIPMENT REPORTING

The Board proposed to alter the URCS Phase III costing model to eliminate the make-whole adjustment applied to single car movements and certain cost components of multiple car movements, and to eliminate the offsetting efficiency adjustments applied to unit train movements and certain cost components of multiple car movements. The Board reasoned that it

could accomplish this change by: (1) calculating unit costs for certain items in URCS Phase II on a per-shipment basis rather than a per-car basis, and (2) allocating those cost items to individual shipments rather than to individual cars in URCS Phase III. The Board recognized that it would not be possible to implement this change using the data that is currently collected and reported by the railroads. Therefore, the Board proposed to require the railroads to begin reporting "shipment" data in addition to its current carload reporting data. The Board defined a shipment only as "a block of one or more cars moving under the same waybill from origin to destination."[3]

In Opening, I discussed the central problems with this proposed change—namely that it was not proven to produce more accurate results than the current model, and that it was not based on any empirical analysis. The Board must conduct studies to ascertain the impact of its proposed changes to determine if they meet the Board's stated objective of providing "more accurate" results. The Board has also inadequately defined the term "shipment," and has failed to recognize the differences between railroad billing and operating practices that must be considered and addressed. Finally, the Board did not show that it had verified—or even attempted to verify—whether the railroads are capable of gathering and reporting shipment data in a way that meets the Board's vague definition.

AAR and BNSF do not object to the elimination of the make-whole and related efficiency adjustments in theory but comment that any changes must be based upon studies. They also commented that the definition of "shipment" must be clearer to avoid inconsistent or erroneous railroad data reporting, and noted that the Board's definition of shipment should not be applied to intermodal shipments. AAR Witnesses Baranowski and Fisher estimated a shipment size of ten (10) flat cars (carrying the system average units per flat car) for intermodal shipments in their workpapers.

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[3] *See EP-431-4*, slip op. at 5.

BNSF does not oppose the Board's definition of shipment for non-intermodal shipments but requests that a special study be conducted for intermodal traffic. Alternatively, it proposes that the Board could require each Class I carrier to report the average number of intermodal flat cars moving together as a block from origin ramp to destination ramp on an annual basis and use this reported number (which was twelve (12) for BNSF in 2012), annualized over three years, to derive Class I railroads' intermodal shipment sizes.

UP supports the Board's objective of eliminating the make-whole adjustment, but does not agree with the Board's approach. UP notes that cars in more than one "shipment" are often switched together (e.g., pulled from origin/placed at destination). UP states that "use of a waybill-based definition of 'shipment' to assign the event-related component of SEM costs to cars moving in shipments of two or more cars will often understate the number of cars actually switched as one block."[4] UP proposes an approach with an event-based component and a shipment-based additive, noting that "use of the Board's proposed definition is less problematic under UP's proposal because the use of a shipment size-related component means there would be less of a sharp break in the costs per car for single-car shipments as compared to multi-car and trainload shipments."[5]

## B. URCS SWITCH ENGINE MINUTE ("SEM") COSTS

The Board proposed to alter the URCS Phase III costing model to allocate SEM costs for switching events based on the number of shipments handled by the railroad, rather than the current approach which allocates switching costs based on the individual carloads switched. This would require a change to the Phase II unit cost development process to restate the current per-car SEM unit costs for terminal, interchange, inter-train and intra-train ("I&I"), and inter-

[4] *See* UP Comments at 9-10.
[5] *Id.* at 10 (n. 12).

and intra-terminal switching events on a per-shipment basis. As I noted and demonstrated through an example in my Opening comments, one significant result of this change would be to substantially increase the switching costs (and overall URCS Phase III costs) for one-car shipments.[6] This is further demonstrated by Baranowski/Fisher's work papers,[7] which show that the terminal and interchange switching costs for one-car shipments on BNSF in 2011 would increase by 26% under the STB's proposed model.[8]

The Board's proposed change has not been proven to produce "more accurate" results than the current model—in fact it was not based on any empirical analysis whatsoever.[9] The Board has departed from its long-established practice of conducting studies to determine the impact of any proposed changes and whether they meet the Board's stated objectives.

AAR and BNSF oppose the implementation of the Board's proposed changes, but have offered an alternative model in which the Phase III SEM costs could be calculated based, in part, on a shipment basis and, in part, on a carload basis, with a proposed weighting that would assign 70 percent of the SEM costs on a shipment basis and 30 percent of the costs on a carload basis. The alternative proposed by AAR/BNSF is designed to "retain[], to the extent practical, the current

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[6] In my opening analysis, I developed a demonstrative example intended to show the impact of the application of the Board's proposed changes on a one-car shipment. My analysis used a surrogate of 6.7 cars/containers per shipment that I derived from the Board's small example data set. Evaluation of the Baranowski/Fisher work papers shows that they estimate 6.3 cars/containers per shipment on average for BNSF in 2011. [*See* Reply work paper "Switching Distribution Model IP Reply.xlsm" at level "calcs", cell F16.]

[7] *See*, e.g., Baranowski/Fisher work paper "Switching Distribution Model.xlsm" at level "calcs", cells K21, M21, R21, and T21.

[8] *See* Reply work paper "Switching Distribution Model IP Reply.xlsm" at level "calcs", cell O6.

[9] This proceeding has similarities to *Ariz. Elec. Power Coop., Inc. v. BNSF Ry. Co. and Union Pac. R.R. Co.*, Docket No. NOR 42113 ("*AEPCO*"), and Ex Parte No. 715, *Rate Regulation Reforms* ("*EP715*"), in which the Board expressed concern over a perceived "disconnect" between the revenues allocated to non-trainload overhead moves and the stand-alone railroad's cost to move those shipments. Specifically, the Board expressed the belief that costly terminal and gathering operations are under-weighted, and the efficient line-haul operations are over-weighted by the average total cost methodology (and by extension URCS). Although the Board has not expressly said so, it appears that the proposed changes to URCS in *EP 431-4* may be intended to address this perceived "disconnect," at least in part, by significantly increasing the terminal costs for one-car shipments, while the Board's proposed changes to the LUM calculation for 1-79 car shipments would result in decreases to line-haul costs for those movements. But, both the Board's and the railroads' proposed models in this case would generally reduce the terminal costs for 2-49 car shipments, thereby increasing the perceived "disconnect" about which they expressed concern, to the extent a disconnect exists at all.

URCS allocations, as they are based on existing studies and are the best evidence of such efficiencies"[10]

The alternative proposed by AAR/BNSF was based on a spreadsheet analysis developed by Messrs. Baranowski and Fisher. Review of the Baranowski/Fisher model reveals that it is not really an alternative at all; rather it is a different way to arrive at an aggregate result that approximates the aggregate results produced by the Board's current model. More specifically, the Baranowski/Fisher model result (i.e., the proposed 70/30 shipment/carload split) is the output from a goal-seek function that is designed to identify the weighting required to produce a distribution of aggregate shipment costs among each of four categories (one-car shipments, 2-79 car shipments, 80+ car shipments, and intermodal shipments) as close to the relative aggregate distribution produced by the current URCS model (which relies on the efficiency and make-whole adjustments) as possible.

Baranowski/Fisher's workpapers reveal that the proposed 70/30 split proposed by AAR/BNSF would come relatively close to serving its intended purpose (i.e., "retain[ing], to the extent practical, the current URCS allocations, as they are based on existing studies and are the best evidence of such efficiencies"[11]) only for BNSF, and only in 2011. Baranowski/Fisher ran the model for every railroad for the 2011 study year, and the resulting splits ranged from 54/46 (Canadian Pacific) to 70/30 (BNSF) with an average of 65/35, and a median of 68/32.[12] The average for western carriers is shown to be a 63/37 split for the study year. [13] No other years were studied, but because the traffic mix changes from year to year on every railroad, the splits also would change on an annual basis. AAR/BNSF propose to apply the 70/30 split to all

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[10] *See* Baranowski/Fisher at 11.
[11] *Id.*
[12] *See* Baranowski/Fisher work paper "Switching Distribution Model.xlsm" at level "Solver", range B38:C46.
[13] *See* Reply work paper "Switching Distribution Model IP Reply.xlsm" at level "Solver", cell C50.

railroads that could only produce reasonably accurate aggregate results for BNSF (and only for one year).

Furthermore, although the model seeks to maintain the current aggregate distribution among the four identified groups of traffic, its application results in vastly different costs for each individual group, even for the BNSF traffic, which is the only carrier for which the 70/30 split mimics the current URCS model on an aggregate basis. As shown in the AAR model, URCS Phase III terminal and interchange switching costs for 2-79 car shipments are reduced by 45% in the aggregate,[14] while they are increased by 127% for intermodal shipments,[15] and 16% for 80+ car shipments.[16] This can hardly be considered a model that "retains the current URCS allocations."

In addition, within the various traffic groups, costs are reallocated between terminal and interchange switching activities. Specifically, as applied to the BNSF 2011 traffic group, the AAR model results in lower terminal switching costs and higher interchange switching costs for one-car shipments than those produced by the extant model.[17] Conversely, as applied to the BNSF 2011 traffic group, the AAR model results in higher terminal switching costs and lower interchange switching costs for unit train shipments than those produced by the extant model.[18] Therefore, the proposed alternative model creates "winners" and "losers" at random depending on whether individual shipments are local to BNSF or interchanged with other railroads.

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[14] *See* Baranowski/Fisher work paper "Switching Distribution Model.xlsm" at level "solver", cell C25 ÷ B25.
[15] *See* Baranowski/Fisher work paper "Switching Distribution Model.xlsm" at level "solver", cell C27 ÷ B27.
[16] *See* Baranowski/Fisher work paper "Switching Distribution Model.xlsm" at level "solver", cell C29 ÷ B29.
[17] *See,* e.g., Baranowski/Fisher work paper "Switching Distribution Model.xlsm" at level "calcs", cells K21, N21, R21, and U21. In actuality, the costs for 2-49 car shipments would be reduced dramatically while the costs for 50-79 car shipments would be increased slightly. This nuance is lost in the Baranowski/Fisher shipment grouping scheme.
[18] *See,* e.g., Baranowski/Fisher work paper "Switching Distribution Model.xlsm" at level "calcs", cells K436, N436, R436, and U436.

This arbitrary reallocation of terminal and interchange switching costs undermines the studies on which the current model's results are based. To the extent that those studies are accurate, application of the Baranowski/Fisher model would result in one-car interline shipments cross-subsidizing one-car BNSF local shipments, and local BNSF trainload shipments cross-subsidizing interline BNSF trainload shipments.

Finally, the entire analysis is dependent upon the unproven assumption that every railroad averages precisely ten (10) flat cars per intermodal shipment. To the extent that number is inaccurate, the model results also are inaccurate. Based on BNSF's own comments, we know that the assumed 10-flat car standard is inaccurate for BNSF, which states that it averages 12 flat cars per intermodal shipment.[19] Therefore, we know that, even for BNSF, the split developed from the Baranowski/Fisher model is based on inaccurate calibration, and is therefore unreliable.

Baranowski/Fisher acknowledge that their model's results are preliminary (i.e., inaccurate) for this reason and offer that their model may be used as a framework to develop more accurate results when more detailed inputs are known.[20] However, this defeats the purpose of implementing a new model in the first place. If the results from the new model can only be verified when compared against—and calibrated to attempt to replicate—the results from the extant model, the new model simply cannot stand on its own. A new model that exists solely to emulate the results produced by an extant model is unnecessary at best.

Because AAR/BNSF's model is calibrated based on the results produced by the extant model, this strongly implies that AAR/BNSF believe the current model produces accurate results.[21] If this is the case, then (1) there is no need to true-up to the current model results using

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[19] *See* BNSF comments at 10.

[20] *See* Baranowski/Fisher at 11 and 13.

[21] There is a stark contrast between the positions taken by various railroad parties in this proceeding and their positions in other recent proceedings concerning stand-alone costs ("SAC"). The railroads' comments in this

a different model, and (2) introducing a new model based on a true-up to the standard of the extant model can only produce *less accurate* results (to the extent that its results vary from the results produced by the current model.) Baranowski/Fisher's workpapers show that the proposed alternative would not demonstrably produce accurate results for any railroad in the study year. Furthermore, they reveal that the results of its application would change the costs allocated to every movement on the railroad, resulting in a reshuffling of the deck that has not been justified. Simply stated, if AAR/BNSF believe the current model should be the standard against which other model outputs are judged, there is no justification for changing the current model.

UP also proposes its own alternative. UP proposes a two-step approach including an event related component, developed using the current make-whole methodology, and a shipment size-related component. Under UP's approach, the current efficiency and make-whole adjustments are used to develop SEM costs for one-car moves, and that result is used as the "event related component." That amount is then multiplied by the total number of shipments handled to arrive at the total "event related" expense. The total "event related" expense is subtracted from the total switching expenses incurred by the railroad to arrive at the total "shipment related" expense. The net amount resulting from that calculation is then divided by the total number of switched cars moving in shipments of two (2) or more cars to arrive at a per-car additive for all shipments of two (2) or more cars.

Importantly, UP's proposed alternative does not accomplish the Board's goal of eliminating the make-whole and related efficiency adjustments. Under UP's plan, the "event-

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case resoundingly reject the changes proposed by the Board and characterize them as distorting and erroneous. In addition, the railroads submitted alternate models that are explicitly designed to preserve the existing cost relationship between terminal and line-haul costs for one-car shipments. In fact, application of the AAR model proposed in this case would *decrease* the terminal switching costs for one-car shipments in URCS Phase III. These positions stand in stark contrast to their positions in both *AEPCO* and *EP715*, wherein they argued that the current model produces distorted results for non-trainload traffic.

based" cost component would be equal to the amount calculated for one-car shipments under the Board's current model. Stated differently, to arrive at the "event-based" cost, the Board would need to apply its efficiency adjustments and related make-whole adjustments as it does currently, then back into a "shipment-based" additive based on a new algorithm. This only complicates the URCS model without even eliminating the make-whole and efficiency adjustments, as both are required to complete step one of UP's proposed methodology. Moreover, UP's proposal suffers from the same shortcoming as the Board's proposal—it is based on suppositions about the impact it will have. Like the STB, UP made no demonstration that its proposed model would actually produce more accurate results—which was the Board's other motivation for its proposed changes—than does the extant model.

UP's proposed methodology is far more complicated than the Board's existing model, as it simply adds extra levels adjustments to the current model. In addition, UP has not demonstrated that it produces more accurate results, and appears only to have considered the impact of its application on a single, hypothetical railroad system that moves only a single 100-car unit train and 300 carload shipments per year. This can hardly be regarded as a demonstration that it produces reasonable or accurate results.

Similar to the Baranowski/Fisher model developed for the AAR, the UP model seeks to hold constant the one-car switching costs while altering the cost allocated to shipments of more than one car to smooth out (i.e., eliminate the steps from) the current URCS cost function. Due to the nature of the UP model, it does actually maintain the status quo for one-car shipments. However, like the Baranowski/Fisher model, it serves to generally reduce costs for 2-49 car shipments while increasing costs for 50+ car shipments. As with the Baranowski/Fisher model,

a model whose effectiveness can only be known if a control model is used to calibrate its results cannot be regarded as superior to the control model.

## C. URCS STATION CLERICAL COSTS

The STB proposed calculating station clerical costs on a per-shipment basis rather than a per-car basis and to eliminate the make-whole adjustment and related efficiency adjustments. Like the proposed changes related to the calculation of SEM costs, the proposed station clerical cost adjustment was not—and could not have been—proven to produce "more accurate results" than the current model, because it was not based on any empirical analysis. Without such studies, the Board's claims that the proposed changes would provide more accurate results are hollow.

Similar to their proposed treatment of the SEM cost calculation, AAR and BNSF propose that URCS station clerical costs be calculated using a split that assigns a portion of the station clerical costs on a shipment basis and a portion of the costs on a carload basis that will "retain the current cost relationships in URCS between larger-sized and smaller-sized shipments."[22] However, unlike their proposal with respect to SEM costs, AAR/BNSF's proposal in this instance is not based on any analysis and is not specific with respect to the split.

UP proposes using the same two-step approach for station clerical costs as it did for SEM costs. It would include an event related component equal to the one-car cost calculated using the existing efficiency and make-whole adjustments, and an additional shipment related component adjustment for shipments of more than one car developed using a new series of calculations in addition to the current model algorithms. It suffers from the same deficiencies discussed above related to the SEM adjustment.

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[22] *See* Baranowski/Fisher at 17.

## D. URCS RAILROAD OWNED CAR EQUIPMENT COSTS INCURRED DURING SWITCHING

The STB proposed to eliminate the efficiency adjustment for use of railroad cars during switching. The Board improperly concluded that there are no efficiencies associated with these activities, and it failed to conduct a study to ascertain the extent to which this costing change would be reflective of real-world railroad operations.

AAR and BNSF state that the Board's proposal is unsupported and will result in less cost refinement than exists today. They propose that URCS railroad-owned car equipment costs incurred during switching should be calculated using a split similar to the 70/30 split they propose for SEM cost distribution.

UP proposes a two-step approach including an event related component, developed using the current make-whole methodology, and a shipment size-related component.

As discussed above, the railroads' proposed changes simply seek to replicate the results produced by the current model through alternate means. This approach is illogical, for if the current model produces results that the alternate models are designed to approximate, there is no reason to abandon the current model in the first place. Doing so could only result in deviation from the results produced by the current model standard, and this would by definition produce less accurate results than those achieved under the status quo.

## E. EMPTY / LOADED RATIO

The STB proposed to use system average empty return ratios for all traffic costed in URCS Phase III. This change would only affect unit train traffic, which is currently assumed to have an empty return ratio of 2.0. AAR, BNSF and UP do not oppose the imposition of the system average empty return ratio on trainload/unit train moves.

As with all of the Board's other proposed changes, this change is not based on any studies, and relies completely on unproven presumptions. There are clearly some unit train movements for which use of anything other than an empty return ratio of 2.0 would result in overstated costs. For example, the use of a 2.0 empty/loaded ratio should be retained for dedicated unit coal train movements that continually cycle between mine and plant.

## F. CHANGE I&I SWITCHING EVENT FREQUENCY MILEAGE FROM 200 TO 320

The STB proposed changing the URCS algorithm that allocates I&I switching costs based on the presumption that I&I switching events occur every 200 miles to an algorithm that allocates I&I switching costs based on the presumption that I&I switching events occur every 320 miles.

The Board's proposed change was totally unsupported by empirical analysis, and while the current 200-mile factor may be outdated, there is no evidence whatsoever that the 320-mile factor proposed by the Board is any more accurate.

AAR, BNSF and UP oppose the Board's proposal and state that the Board must conduct a special study regarding I&I switching and carriers' actual operations. UP states that its average miles between I&I switch events was 250 based on 2011-2012 operating data.[23]

Regardless, the URCS Phase III program allocates the URCS Phase II I&I switching unit costs on a per-mile (fractional) basis, so changing the estimate of miles between switch events for the Phase II and III portions of URCS will have little impact on the resulting statement of I&I costs. Unless the actual mileage is known, changing from the current standard cannot be justified.

[23] *See* UP comments at 13.

## G. CHANGE THE DEFINITION OF TRAINLOAD FROM 50 TO 80 CARS

The STB proposed to raise the shipment size demarcation point at which a movement is costed as a unit train to 80-cars from the current 50-car demarcation point. AAR and BNSF do not oppose the Board's proposed change. UP notes that it moves "a significant number" of trainload shipments of fewer than 80 cars,[24] but it does not oppose the change "as long as actual operating characteristics are used to determine the type of movement when costing a limited number of movements--for example, costing the issue traffic in a rate case."

The Board's proposal was only supported by general anecdotal observations and should not be implemented until a study is conducted to identify the actual demarcation point. Furthermore, the demarcation point should be specific to individual commodities and regions, and perhaps carriers. The required study should not be costly or burdensome to conduct, as the railroads likely have relevant data at hand and presumably would be willing to provide it to the Board.

## H. LOCATION OF LOCOMOTIVE UNIT-MILE ("LUM") TRAINLOAD COSTS

The STB proposed eliminating the adjustment to system average LUM costs for trainload traffic based on shipment size, stating that:

> "[T]he entire train's LUM costs would be allocated to the trainload shipment, regardless of the gross tons of the trainload shipment relative to the average gross tons of a particular train. This should be more accurate than the current approach because, by definition, a trainload shipment has no other shipments that should share the LUM costs of that train."[25]

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[24] ARC (through Witness Fauth) objects to the change and opines that the 80-car shipment size is incorrect in many cases, citing an example of a 75-car grain shuttle as a shipment that should be considered a trainload shipment for costing purposes.

[25] *See EP431-4* at 9.

The unit train LUM adjustment is used to account for the fact that unit trains are not homogeneous and that relatively more locomotive power is required to move relatively longer and heavier unit trains over the same terrain. However, there are step functions associated with the addition and removal of locomotives from unit trains, and the horsepower-to-trailing weight curve is stepped, not linear. In addition, the locomotive units that compose the railroads' locomotive fleets are diverse – relatively larger and more powerful units are generally used in unit train and dedicated intermodal service. Therefore, the number of locomotives does not necessarily increase as train weight increases.

AAR, BNSF and UP oppose the STB's proposed LUM trainload adjustments. UP further argues that URCS Phase III should allow the user to enter the actual number of locomotives used to develop shipment LUM costs. As with UP's proposal with respect to the shipment size demarcation point, allowing movement-specific adjustments to URCS Phase III costing for specific items would be counter to recent Board precedent.

## I. ALLOCATION OF LOCOMOTIVE UNIT-MILE ("LUM") NON-TRAINLOAD COSTS

The STB proposed allocating all LUM-related costs for non-trainload traffic based on the presumption that all non-unit trains on all rail systems consist of precisely 80 cars. AAR, BNSF and UP oppose the STB's proposed LUM adjustments for non-trainload shipments. The Board's proposal is not based on empirical analysis, and further, it is demonstrably flawed when railroad data is evaluated.[26]

[26] *See* Mulholland Opening V.S. at 28-30.

## J. ITEMS RAISED BY RAILROADS BUT NOT IN BOARD'S PROPOSAL

AAR and BNSF recommend the elimination of the allocation of inter-terminal and intra-terminal switching activity to SEM within URCS Phase II. "An intraterminal switch is a complete movement within a terminal area by one railroad. An interterminal switch is still contained within a single terminal area but requires an interchange between railroads."[27] Messrs. Baranowski and Fisher point out that switching costs are assigned to these activities in URCS Phase II but these costs are not allocated to individual shipments in URCS Phase III. This truism, however, does not equate to an error or problem with the current model's algorithms. As the STB's URCS manual states, "intraterminal switching services, [] are generally omitted from an application of the movement cost, since they are not related to inter-city transportation."[28]

Interterminal and intraterminal switching activities are conducted to enhance yard fluidity and maintain adequate capacity to ensure the required throughput levels. These activities are not necessarily attributable to the cars being switched because the switching activity may be conducted to improve the service levels for other shipments,[29] or it may be discretionary and based on the railroad's road train schedule.[30] Nor are they attributable to other cars because it is impossible to know precisely which cars benefitted from the activities under the railroads' data collection and reporting activities. Because the costs are not attributable to any particular shipment, they are correctly excluded from the URCS Phase III costing algorithm.

AAR and BNSF purport to identify a technical error in the calculation of switching costs related to the I&I switching intervals that should be corrected. Specifically, Messrs. Baranowski

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[27] *See* "STB Railroad Cost" manual at 9.

[28] *Id.*

[29] For example, the railroad may elect to switch traffic to sidings in order to allow higher priority traffic to pass through the yard unimpeded.

[30] For example, the railroad may elect to switch traffic to sidings in order to hold that traffic for its own convenience.

and Fisher point out that, for intermodal shipments, URCS Phase II develops system-wide SEM data (and unit costs) based on a presumed 200 miles between I&I switching events. As a result, they contend that the amount of I&I switching activity (and total switching activity) is overstated, which results in under allocation of SEM and an understatement of Phase II switching unit costs for all event types. Specifically, because URCS Phase III allocates I&I costs to intermodal shipments based on a presumed 4,162 miles between I&I switching events, Baranowski/Fisher claim that there is an imbalance between the total switching activity to which costs are allocated in Phase III (the correct amount) and the understated unit costs based on a different (higher) level of switching activity that is presumed to occur in the Phase II calculation (an overstated amount). This leads to an understatement of switching-related variable costs in URCS Phase III for all shipments. They propose to alter the URCS Phase II algorithms to correct for this alleged mismatch.

This proposed change is well outside the scope of this proceeding. Furthermore, Baranowski/Fisher's quantification of the alleged cost misstatement relies on variables that were themselves developed decades ago and thus may be just as inaccurate as the formula components Baranowski/Fisher opine should be adjusted. Specifically, their calculation is dependent on the equated factors that were developed 50 years ago. This sort of piecemeal adjustment should be avoided.

AAR states that Ex Parte 706 (*Reporting Requirements for Positive Train Control Expenses and Investments*) and Ex Parte 681 (*Class I railroad Accounting and Financial Reporting – Transportation of Hazardous Materials*) need to be addressed and finalized by the Board as suggested by AAR. On August 14, 2013, the STB issued a Decision in the Ex Parte 706 proceeding, wherein it required separate reporting of certain PTC-related expense items in

the railroads' R-1 reports. As noted in Commissioner Mulvey's dissenting opinion, this is akin to putting the "cart before the horse," as the Board has yet to issue a decision in Ex Parte 681, which will address the "question of *whether* the substantial cost of PTC installation should be borne by all shippers proportionally or only by TIH shippers (or something in between)."

## III. CONCLUSION

The Board's intentions—to make URCS costs more accurate while streamlining the program—were universally embraced by the commenting parties. However, the Board's proposed changes to meet its stated objectives were roundly criticized by the parties. Railroads and shippers alike expressed deep concern over the lack of support provided by the Board, and specifically over the absence of any demonstration that the Board based its proposals on any empirical data analysis. The URCS program has been refined over the years, and changes have historically been made only after detailed and targeted studies have been conducted. The Board now seems comfortable basing changes to the URCS program on nothing more than logic and intuition. The railroads offered alternatives to the model proposed by the Board, but their models have not been demonstrated to be any more accurate than the current model, and both models have been developed with the intention to produce similar results to the current model. This modeling framework is a tacit endorsement of the current model's results. If the railroads' goal is to replicate as closely as possible the results of the current model with their proposed new models, there is no reason to adopt them. In fact, they can only serve to make the results less accurate because they demonstrably deviate from the target result.

The Board should continue to strive to make the URCS program costs as accurate as possible. However, the Board cannot possibly know how accurate its model's costs are without collecting and evaluating pertinent data. The Board has not demonstrated that its current model's costs are inaccurate. Therefore, it cannot possibly know which changes are needed to improve the accuracy of the model. The Board should take a step back and first seek to determine what portions of its current model's cost algorithms are inaccurate.

**VERIFICATION**

COMMONWEALTH OF VIRGINIA )
)
CITY OF ALEXANDRIA )

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

Robert D. Mulholland

Sworn to and subscribed
before me this 5th day of September, 2013

Diane R. Kavounis
Notary Public for the State of Virginia

My Commission Expires: November 30, 2016
Registration Number: 7160645