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September 22, 2009

VIA E-FILING

The Honorable Anne K. Quinlan
Acting Secretary
Surface Transportation Board
395 E Street, SW
Washington, DC 20423

Re: STB Docket NOR 42114, *U.S. Magnesium, LLC v. Union Pacific Railroad Company*

Dear Ms. Quinlan:

Enclosed for e-filing in the above-captioned case please find the Reply Evidence of U.S. Magnesium, LLC ("USM"). USM is e-filing both a Confidential and Public Version of its Opening Evidence. Highly Confidential and Confidential Information is redacted from the Public Version and is denoted with brackets { } in the Highly Confidential Version. Pursuant to the Board's e-filing procedures USM is filing the Highly Confidential version under seal.

USM is also hand delivering to the STB today three (3) compact disks to accompany this filing, which contain the electronic workpapers of USM's witnesses Mr. Kim Hillenbrand and Mr. Tom O'Connor.

Please feel free to contact me with any questions.

Sincerely,

Thomas Wilcox

Thomas W. Wilcox

Enclosure

cc: Michael L. Rosenthal, Esq. (counsel for Defendant)

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

COMPLAINANT'S REPLY EVIDENCE

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September 22, 2009

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UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

COMPLAINANT'S REPLY EVIDENCE

Complainant U.S. Magnesium, LLC ("USM") hereby submits its Reply Evidence in this proceeding. This Reply evidence is divided into two parts. Part I is Counsel's Reply Argument; Part II contains the Reply Verified Statements of Mssrs. Howard I. Kaplan, Kim N. Hillenbrand, and Tom O'Connor. Mr. Kaplan replies to the statements in the Union Pacific Railroad Company's ("UP") Opening Evidence describing a "market" for the transportation of chlorine and Toxic by Inhalation Hazardous ("TIH") commodities, as well as UP's statements about USM. Mr. Hillenbrand provides written testimony concerning the variable cost calculations for the issue movements from USM's Rowley, Utah facility to destinations in Eloy AZ and Sahuarita, AZ, and also explains in detail why USM's traffic comparison groups are more appropriate for use in the R/VC_{COMP} component of the Three Benchmark Methodology in this case than UP's single offered comparison group. In his reply statement, Mr. O'Connor provides written testimony refuting UP's claims that the implementation of Positive Train Control ("PTC") technology on UP's system is an "other relevant factor" that warrants increasing the presumptive maximum reasonable rates for the issue movements produced by a proper application of the Three Benchmark Methodology.

In addition, USM supports the Joint Motion of the Fertilizer Institute, American Chemistry Counsel, and the Chlorine Institute for Leave to File a Joint Reply, as *Amici Curiae* to the Opening Evidence of Union Pacific Railroad Company in this proceeding. UP's Opening Evidence raises issues that go well beyond the scope of this particular case and the Three Benchmark Methodology, and which have broad ramifications for the rail industry as a whole. As such, the input from these trade associations is important and relevant to this proceeding. USM adopts the arguments raised in the Joint Reply as part of its Reply Evidence.

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

PART I – COUNSEL'S ARGUMENT

I. INTRODUCTION

In its Opening Evidence in this proceeding, UP has tendered an initial comparison group for the R/VC_{COMP} benchmark for use in this proceeding that is contrary to the comparability factors outlined in *Simplified Standards*[1] and is directly contrary to recent Board precedent involving the reasonableness of chlorine transportation rates under the Three Benchmark Methodology. The comparison groups tendered by USM for each issue movement, on the other hand, are entirely consistent with the *Simplified Standards* and Board precedent, and are therefore the appropriate comparison groups and should be selected for use in this case. The comparison group issues are discussed in

[1] *Simplified Standards for Rail Rate Cases*, (served September 5, 2007) ("*Simplified Standards*"); *recon. denied* March 19, 2008; *aff'd*, *CSX Transportation, Inc. et al v. Surface Transportation Board,* 568, F.3d 236 (D.C. Cir. 2009). This Reply Evidence uses the same abbreviations used in USM's Opening Evidence for the Board's Convenience.

greater detail in Section II below, as supported by the Reply Verified Statement of Mr. Hillenbrand. ("Hillenbrand Reply VS"). Mr. Hillenbrand also summarizes and restates how the challenged rates from USM's facility in Rowley, Utah to Eloy AZ and Sahaurita, AZ are presumptively unreasonable under the Three Benchmark Methodology.

The remainder of UP's Opening Evidence is devoted almost entirely to an effort by UP to greatly expand the scope of the Board's review of rates under the Three Benchmark Methodology well beyond that intended by the Board in adopting the *Simplified Standards*. Using a flawed and factually unsupported underlying premise that changes in the "market" for TIH rail shipments justify raising the presumed maximum reasonable rates for the issue movements due to purported "regulatory lag," UP has sought to use the "other relevant factors" component of the Three Benchmark methodology to transform this rate proceeding into a major rate policy initiative. Specifically, UP has proposed that the Board establish in this proceeding, involving two movements on UP's entire system, a methodology by which UP would recover, in advance, from USM and other Toxic by Inhalation Hazardous ("TIH") rail shippers, costs UP currently estimates it will invest in PTC technology on its system by December 31, 2015 as a result of the passage of the Railroad Safety Improvement Act of 2008 (the "Act").[2] However, as demonstrated in this Reply Evidence, UP's proposal has no place in this case. In the first place, the December 31, 2015 implementation date is well beyond the five-year prescription period in this case. Second, the underlying premise for UP's proposals – that it is justified by purported changes in the TIH transportation "market" as described by UP – is factually unsupported. Moreover, as explained in more

[2] Pub. L. 110-432, 122 Stat. 4854 (October 16, 2008)(Codified at 49 U.S.C. §20157).

detail in Section III below, assessing USM and other TIH shippers the estimated implementation costs for PTC is inappropriate for a number of reasons, which include (1) any such future costs are uncertain and speculative, and (2) any costs UP eventually incurs for PTC on the issue movement tracks or elsewhere on its system will be accounted for and recouped by UP under the Board's maximum reasonable rate calculation procedures.[3]

II. USM'S "FINAL OFFER" COMPARISON GROUPS ARE SUPERIOR TO UP'S SINGLE GROUP AND SHOULD BE SELECTED BY THE BOARD

Pursuant to *Simplified Standards*, each party on Reply tenders its "final offer" group of rail movements it believes should comprise the comparison group for the movement at issue.[4] Only movements previously submitted by either party may be in a final group, and any movements included in both sides' initial tenders will be required to be included in each side's final comparison group, unless the parties agree to the exclusion.[5] In this case, USM's initial tender consisted of two comparison groups, one for the Eloy movement and one for the Sahaurita movement. UP, on the other hand, chose to tender one comparison group for both movements, a threshold difference that renders UP's initial offering inferior to USM's at the outset. Mr. Hillenbrand's Reply Verified Statement sets out in greater detail USM's analysis of UP's single comparison group and the additional reasons why it is inferior to USM's comparison groups. The key points in his Reply Verified Statement are summarized as follows:

[3] UP also weakly asserts that the presumptively maximum reasonable rates should be increased due to the fact that USM is shipping chlorine to the issue movements under common carrier rates, while most chlorine shipments are shipped under contract rates. UP Opening Evidence at 63-65. USM responds to this flawed argument in Section V of this Reply Evidence, and at Hillenbrand Reply VS at 21-23.

[4] *Simplified Standards* at 18.

[5] *Id.*

A. Commonalities Between the Parties' Comparison Groups

The parties have three comparison factors in common. Each party included traffic for which the R/VC ratios are greater than 180%. Each party also included movements that are transported in privately owned rail tank cars. Finally, both parties excluded the issue traffic from their comparison groups. Moreover, there are four (4) movements in common between the Eloy comparison group and UP's single group; and two (2) movements in common with the Sahaurita group and UP's single group. These movements are included in USM's final tender comparison groups.[6]

B. USM's Comparison Groups are Superior and More Appropriate for Use in this Case than UP's Single Comparison Group

Mr. Hillenbrand's Reply Verified Statement explains why UP's single comparison group offering is not sufficiently comparable to the issue movements to be used in this case, and should therefore be rejected in favor of USM's comparison groups for Eloy and Sahaurita. These reasons include the following:

1. UP's Single Comparison Group Contains Too Few Movements

USM's comparison groups for Eloy and Sahaurita contain { } and { } movements, respectively, while UP's single group contains only { } movements.

2. UP's Single Comparison Group Consists Only of Chlorine Movements, Contrary to *Simplified Standards* and Recent Agency Precedent

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[6] Hillenbrand Reply VS at 19-20. On Reply, USM has accepted UP's calculation of the loaded miles for each issue movement and has recalculated each movement's URCS Phase III variable costs and the R/VC ratios of the challenged rates accordingly. Id. at 5-7. Mr. Hillebrand explains at pages 19 to 20 of his Reply Verified Statement why the adjustment of the loaded miles had no material effect on the comparison group prepared for each issue movement.

USM's comparison groups consist of movements of TIH commodities that have comparable characteristics to the issue movements, consistent with the *Simplified Standards* and STB Docket No. 42100, *E.I DuPont de Nemours and Co. v. CSXT Transportation, Inc.*, (served June 27, 2008)("*DuPont*").[7] UP's initial comparison group, on the other hand, consists solely of chlorine movements. But the Board has previously determined in *DuPont* that a chlorine-movement only comparison group does not comply with this aspect of the comparability factors of the *Simplified Standards*, a prior precedent UP completely ignores. In *DuPont*, the railroad defendant argued strenuously that the comparison groups in that proceeding should have consisted only of chlorine movements, in large part based on claims that chlorine and anhydrous ammonia – the second most TIH commodity shipped by rail – are in different "markets." [8]

In *DuPont,* the STB rejected all of CSXT's arguments and decided that the appropriate comparison group in that case was the one tendered by the complainant consisting of all TIH commodity movements. In so deciding the Board stated, "[w]e conclude that a more appropriate comparison group should include all TIH shipments, rather than a narrowly tailored group of chlorine shipments alone,"[9] and "[c]hlorine is indeed a dangerous chemical, and accidents expose railroads to litigation risk. But there are many other dangerous chemicals, and we believe that a broader comparison group

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[7] The purpose of the R/VC_{COMP} benchmark "is to compare the markup being paid by the challenged traffic to the average markup assessed on other potentially captive traffic involving the same or a similar commodity moving similar distances." *Simplified Standards* at 10 (emphasis added).

[8] <u>See</u> Docket No. 42100, Opening Evidence of CSX Transportation, Inc. at 22 ("the markets for chlorine and anhydrous ammonia, however, are much different"); Reply Evidence of CSX Transportation at 16-17 (in addition to being in different markets, rail shipments of anhydrous ammonia are "subject to considerable competition" from other modes); Rebuttal Evidence of CSX Transportation at 23-29.

[9] *DuPont* at 8.

that includes these other TIH chemicals would provide a more reasonable guide for the contribution of joint and common costs that the movements at issue should bear."[10]

Nevertheless, UP in its Opening Evidence completely ignores the STB's rejection of a chlorine-only comparison group in *DuPont* and rehashes CSXT's rejected arguments. For example: (1) "[c]hlorine is in a very different product market than anhydrous ammonia and other TIH materials handled by UP;"[11] (2) anhydrous ammonia sometimes moves in transportation modes other than rail;[12] and (3) chlorine is "an especially dangerous commodity."[13] All of these arguments were raised and rejected in *DuPont*, and they are as wrong in this case as they were in *DuPont*. This attempt to relitigate settled a decision in a subsequent rate case without providing any new evidence or different arguments - let alone without even *mentioning* the prior decision - should be rejected.[14] UP's apparent attempt to expand on CSXT's arguments that chlorine and anhydrous are not similar commodities by asking the Board to adopt a "product competition/substitution test" should also be rejected.[15] In the first place, the adoption of such a test would be contrary to the Board's desire to keep "product and geographic evidence associated with particular movements" out of Three Benchmark cases.[16] Second, the Board has already determined in *DuPont* that chlorine and anhydrous ammonia (and other TIH commodities) are all sufficiently similar commodities to be

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[10] *Id*. at 9.
[11] UP Opening Evidence at 26.
[12] *Id*. at 27.
[13] *Id*.
[14] See, e.g., Ex Parte No, 347 (Sub-No.3), *General Procedures for Presenting Evidence in Stand-Alone Rate Cases* at 6 (precedent established in prior cases will be adhered to unless new evidence or different arguments are presented).
[15] UP Opening Evidence at 25.
[16] *Simplified Standards* at 25.

included in a comparison group in a Three Benchmark case challenging chlorine rail rates.

Finally, USM has demonstrated that UP implemented a pricing strategy designed to discourage the movement of TIH shipments as a whole on UP's system, without singling out chlorine for unique treatment. Thus UP treats all TIH shipments as having the same demand elasticity.[17] This is further reason for the Board not to depart from its decision in *DuPont* that "a comparison group drawn exclusively from traffic that the railroad concedes is being priced to discourage traffic would not, in our view, provide a reasonable measure of the share of joint and common costs (and thus the maximum R/VC levels) that should be borne by the issue chlorine movements." [18]

3. UP's Comparison Group Does Not Contain Movements Sufficiently Comparable in Length to the Issue Movements

USM's comparison groups are also superior to UP's group because they include movements more comparable in length to the issue movements.[19] The movements at issue are approximately 1250 miles (Sahuarita) and 1290 miles (Eloy) in length. In *DuPont*, both parties generally agreed on the length of comparison group movements, which was to include movements within a range of 150 miles on either side of the issue movements' length.[20] In that case, the Board clarified its preference to "use the actual length of haul for calculating the issue movement's distance," and accepted the parties'

[17] USM Opening Evidence at 12-13; O'Connor Opening Verified Statement.
[18] *DuPont* at 9.
[19] *Simplified Standards* at 17.
[20] *DuPont* at 8; note 25.

agreed-upon range.[21] Consistent with the foregoing, albeit with a slight modification, in this case USM's comparison groups apply a range of 200 miles to the actual issue movement miles.

UP, on the other hand, has proposed in its Opening Evidence a range of plus or minus *400 miles*, which produces a total range of nearly *700* miles between the shortest and longest movement in UP's R/VC_{COMP} Group.[22] Such a wide range clearly does not meet the requirement that movements in a comparison group be of similar distances, and UP does not attempt to provide an explanation for why the Board should so significantly depart from *Simplified Standards* and *DuPont*. Moreover, Mr. Hillenbrand explains how the wide range of movements lengths in UP's tendered comparison group produces a wide variation of the associated movements' variable costs, contrary to the requirement that "the variable cost calculation of the issue movement and comparison group will be similar."[23] The lack of comparability is heightened by the fact that UP's comparison group only has 24 movements.

4. UP's Limitation on Car Type is Too Restrictive

While both parties included only movements transported in privately owned rail tank cars in their comparison groups, UP's comparison group is limited to movements in private tank cars with a capacity of less than 22,000 gallons, consistent with UP's attempt to convince the Board to reverse its rejection of a chlorine movement-only comparison

[21] This concurrence was consistent with other statements in the *Simplified Standards.* See, e.g., *Simplified Standards* at 73: (example provided by Board included "a shipper challenging a 400-mile movement might look to comparable movements of between 300 and 500 miles, while a shipper with a 500-mile movement . . . might itself use a different comparison group of movements between 400 and 600 miles.")
[22] Hillenbrand Reply V.S. at 14.
[23] *Id.; citing Simplified Standards* at 17.

group in *DuPont*.[24] However, this car-type limitation is also too restrictive and contrary to the use of a broader TIH commodity comparison group in cases involving challenges to chlorine rates. In addition, Mr. Hillenbrand demonstrates from a cost-of-service standpoint that the inclusion of railcars with capacities above and below 22,000 gallons in a comparison group has very little impact on the comparability analysis.[25]

5. UP's Comparison Group Wrongly Includes "Rebilled" Movements

Finally, despite the fact that UP provides single line service to the issue movements from USM's Rowley, Utah facility, and no other railroad transports USM's rail cars to either destination, UP included "rebilled movements" in its comparison group.[26] Rebilled movements entail the delivery of a shipment by one carrier to another, which then makes the delivery to the destination. In addition to not being comparable to the issue movements, such movements are costed differently by URCS, which distorts the R/VC_{COMP} result in favor of UP.[27]

C. USM's "Final Offer" Comparison Groups Should be Used in this Proceeding

USM's "Final Offer" comparison groups for the Eloy and Sahaurita movements, are set forth in Hillenbrand Reply VS Exhibit__(KNH-14) and Exhibit_(KNH-15), respectively. The criteria for selecting the groups, and the resulting composition of each group, have produced groups of movements that are more closely comparable to the issue movements than UP's single comparison group, and so should be selected by the Board for use in the R/VC_{COMP} component of the Three Benchmark Methodology.

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[24] UP Opening Evidence at 21-22.
[25] Hillenbrand Reply VS at 13.
[26] UP Opening Evidence at 21.
[27] Hillenbrand Reply VS at 12-13.

Applying the remainder of the Three Benchmark Methodology as described in *Simplified Standards* and USM's Opening Evidence at 18-20, and adjusting the variable cost calculations for the acceptance by USM of UP's calculation of the loaded miles for each movement, produces the following calculations of the presumptively maximum reasonable rates and R/VC ratios for the Eloy and Sahuarita movements:[28]

Table I
Maximum Rate and R/VC 1Q 2009

Ln	Item	Eloy	Sahuarita
1.	Issue Rate per Carload	$13,396	$10,410
2.	Variable Cost - 1Q 2009	$2,549	$2,485
3.	R/VC	526%	419%
4.	Maximum R/VC	311%	302%
5.	Maximum Rate per Carload	$7,920	$7,501

When the foregoing presumptively maximum reasonable rates and R/VC are adjusted pursuant to the "other relevant factor" of UP's overall TIH pricing strategy, discussed at pages 20-21 of USM's Opening Evidence, the maximum reasonable rates and R/VC ratios that should be prescribed in this case are as follows:[29]

Table II
Maximum Rate and R/VC 1Q 2009 w/ Comp Group TIH Benchmark

Ln	Item	Eloy	Sahuarita
1.	Issue Rate per Carload	$13,396	$10,410
2.	Variable Cost - 1Q 2009	$2,549	$2,485
3.	R/VC	526%	419%
4.	Maximum R/VC	{ }	{ }
5.	Maximum Rate per Carload	{ }	{ }

[28] Hillenbrand Reply VS at 22.
[29] Id. at 24.

III. UP'S ESTIMATED COSTS TO IMPLEMENT PTC ARE NOT AN "OTHER RELEVANT FACTOR" JUSTIFYING INCREASES TO THE PRESUMED MAXIMUM REASONABLE RATES

A. The "Market" Changes UP Claims Warrant Adjustments to the Presumed Maximum Reasonable Rates Did not Occur

In its Opening Evidence, UP paints a picture of a "market" for chlorine and other TIH commodities, in which UP and all of the other "market" participants – all except USM, according to UP - have mutually agreed that UP may significantly increase rail rates for TIH shipments because all of the "market" participants realize that UP and other railroads are incurring increases risks and costs in transporting TIH commodities and that UP's customers should pay – in advance – for such costs, particularly UP's estimated costs for installing PTC.[30] Indeed, the word "market" appears 126 times in UP's 62 page narrative. UP states that the "most dramatic" example of new costs that this congenial "market" recognizes is the requirement that railroads install PTC technology, and that "UP marketing personnel have told TIH shippers that the obligation to install PTC is one of the market factors affecting UP's contract proposals, and shippers have acknowledged it is a legitimate consideration in establishing rate and service terms."[31] The "market" UP describes is unsupported by the facts.[32] First, as explained in the accompanying Reply Verified Statement of Howard Kaplan, at no time during the contract negotiations between USM and UP did UP representatives state to USM that a reason for the substantial rate increases UP was seeking to impose on USM was to supply funds to UP to pay for its estimated PTC implementation costs. Kaplan Reply VS at 2. Second,

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[30] UP Opening Evidence at 2-4.
[31] *Id*.; UP Opening Evidence at 50.
[32] The three industry groups jointly replying *Amici Curiae* to UP's Opening Evidence also strongly disagree with UP's assertions.

USM's discovery requests to UP in this proceeding included requests asking for documents and information on (1) any and all significant new costs of transporting chlorine and other TIH commodities UP anticipated between 2009 and 2014; and (2) the market for transportation of chlorine. In response to USM's requests UP produced over 115,000 pages of material. A review of these documents did not reveal any documents in which UP told another customer that rate increases being proposed were for the purpose of supplying funds to UP for PTC. O'Connor Reply VS at 11. On the contrary, in late October 2008, a TIH customer request for information on UP's implementation of PTC after passage of the Act was met with a statement that {

.}[33] This indicates as recently as October, 2008 UP marketing personnel knew little or nothing about PTC's potential effect on TIH rates.

Finally, UP's Opening Evidence contains no documentary evidence or testimony supporting the descriptions of the mindset and intentions of UP's other TIH customers (*see e.g.* UP Opening Evidence at 13: "With the exception of USM, UP's chlorine shippers have recognized the significant changes that have occurred in the market for transporting chlorine since 2004,"). Such self-serving statements have zero probative value in this proceeding, as they are unsupported by any facts in the record and their truth or falseness cannot possibly be known to USM or the Board. They nevertheless are offered by UP to prove the truth of the matter asserted, and thus are by definition hearsay, and inadmissible. When faced with such circumstances in the past the Board, and its

[33] *See* O'Connor Reply VS at Exhibit_(TOC-1).

predecessor agency the Interstate Commerce Commission, have held that such statements are to be given little or no weight.[34]

In summary, UP's attempt to avail itself of the "other relevant factors" component of the Three Benchmark Methodology by painting a picture of an evolving agreeable "market" for chlorine and TIH commodity transportation is belied by the facts. On the contrary, the evidentiary record of this proceeding is replete with statements and evidence demonstrating that UP's significant rate increases for TIH commodities over the past several years are the result of (1) the desire of UP and other Class I railroads to purge TIH commodities off of their systems; and (2) to extract monopoly profits from the remaining TIH shippers whom UP would not serve, but for the statutory requirement to serve under 49 U.S.C. §11101. This is precisely the type of behavior that this Board has jurisdiction over, and why the *Simplified Standards* were promulgated. UP disparagement of USM as some sort of TIH outlier trying to "gain a competitive advantage" on other TIH shippers simply because USM had the temerity to formally challenge the reasonableness of two of UP's rates in a Three Benchmark case is unfortunate and, of course, patently false, particularly given the rate levels USM has paid in recent years, and the profits to UP produced by the rate levels application of the Three Benchmark Methodology in this case produce.

B. Adding a Portion of UP's Estimated PTC Installation Costs to the Presumptive Maximum Reasonable Rates is Improper Because Such Costs Cannot be Presently Quantified

[34] *Petition for Declaratory Order—Nancy Hall v. Aloha International Moving Services, Inc., Allied Van Lines, Inc., VIP Transport, Inc., and Allied International N.A., Inc.*, STB Docket No. 42048 (STB served Mar. 14, 2001); *Burlington Northern Railroad Company – Abandonment – In Crawford and Labette Counties, KS*, Docket No.AB-6 (Sub No. 300) (ICC decided Dec. 1. 1998).

To the extent a party seeks to overcome the presumption that the challenged rates are unreasonable due to “other relevant factors” it must quantify the impact of those factors on the presumed maximum lawful reasonable rates.[35] This cannot be done for PTC. Apart from the fact that the estimated future costs of UP’s implementation of PTC had nothing to do with the rate increases it imposed on USM, and therefore do not constitute an “other relevant factor” caused by market changes, the up front allocation of what UP presently estimates its PTC implementation costs will be in this proceeding is inappropriate for the additional reason that the actual costs UP will incur to implement PTC are presently unknown, as are the areas on UP’s system where PTC will be required to be installed. UP admits, as it must, that it will not be required to implement PTC until December 31, 2015. UP also admits that the only commitment it has made to install PTC is in the Los Angeles area by 2012.[36]

The $1.4 billion implementation cost that UP asserts in its Opening Evidence, as well as all of the discussion about where on UP’s system PTC will be installed, are both therefore, highly speculative. Nevertheless, UP is asking the Board to adopt a mechanism in this Three Benchmark case, by which the lion’s share of the *total* amount UP estimates it *might* pay by 2015 to install PTC *system-wide* would be allocated *in advance*, to USM and all other TIH shippers,[37] regardless of whether such costs are actually incurred, and regardless of whether PTC is actually installed on tracks over which their TIH commodities move. Significantly, UP provides no mechanism for USM

[35] *Simplified Standards* at 22.
[36] UP Opening Evidence at 37.
[37] Clearly, UP would not limit application of its cost allocation proposal to USM.

or any other shipper to receive a refund or repayment of their share of the $1.4 billion estimate if UP's total implementation cost ends up being below that amount.

The actual tracks on which PTC will be installed and the timing for such installation are the subject of a rulemaking pending before the Federal Railroad Administration ("FRA"), the agency charged with implementing the Act. As the Board might expect, the timing and scope of PTC implementation is a subject upon which railroads and shippers disagree. As stated previously, the Act requires that railroads install PTC on certain mainline tracks by December 31, 2015. Affected railroads are required to provide an implementation plan to the FRA by April 2010. In its proposed rule the FRA has proposed to implement its statutory directive by establishing a baseline of the tracks upon which PTC will be installed as the tracks over which TIH moved in 2008. The estimates in UP's Opening Evidence, including the $1.4 billion estimated implementation cost, are based on this FRA "current proposal."[38] However, at the same time UP, through its membership in the Association of American Railroads ("AAR"), has objected to the 2008 baseline, arguing to the FRA that it is contrary to Congressional intent in passing the Act. Specifically, AAR's position is that Congress intended for PTC implementation to occur on tracks that meet the statutory requirement as of December 31, 2015, not 2008, because "[c]ome 2015, AAR expects that there will be routes that were used for TIH traffic in 2008 but will no longer be used for that traffic . . . . FRA cannot, consistent with the wording of the statutory mandate, interpret the statutory directive to install PTC on main lines as encompassing routes over which passengers or TIH are not

[38] UP Opening Evidence at 42.

transported in 2015."[39] Stated another way and applied to the facts of this case, under AAR's view of the Act, if between now and 2015 the routes at issue in this rate proceeding are no longer used to haul USM's chlorine to Eloy or Sahaurita, then there would be no requirement for UP to install PTC on those lines at all, absent the presence of other TIH or passenger traffic. The FRA is well aware of the obvious strong incentives the Act creates for Class I railroads to shed TIH traffic before December 31, 2015.[40] The FRA's adoption of the AAR interpretation in its final rule would at a minimum render UP's $1.4 billion estimate moot, since it is based on the FRA's proposed rule.

For their part, TIH shippers have taken the view that the FRA proposed rule is too narrow. For example, the Chlorine Institute and the Fertilizer Institute have both argued in their respective comments on the FRA rulemaking that the Secretary of Transportation should exercise discretion granted to him under the Act to expand the scope of rail lines on which PTC systems would be installed to cover tracks other than tracks used for TIH and passenger transportation.[41] In the words of The Fertilizer Institute, such expansion of the program is warranted because "the purpose of PTC is to avoid a collision regardless of whether the train is carrying a TIH material."[42] The expansion of PTC to other rail lines would undoubtedly affect the overall costs to UP and other railroads, but it also

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[39] Comments of AAR in Docket No FRA-2008-0132, submitted on August 20, 2009 at 4.

[40] The FRA has expressly recognized that the Act "which entails an expenditure of billions of dollars, most of it nominally because the line in question carry PIH, presents an additional enormous incentive for the Class I railroads to shed PIH traffic and, further, to concentrate the remaining PIH traffic on the fewest possible lines of railroad." FRA Docket No. FRA-2008-0132, *Positive Train Control Systems*, Notice of Proposed Rulemaking, at 55-56.

[41] *See* Pub. L. 110-432 §104(a), subsection (C), cited at UP Opening Evidence at 35.

[42] Comments of The Fertilizer Institute in Docket No. FRA-2008-0132 at 1.

would affect how those costs are allocated amongst rail users and the Nation as a whole.[43]

Finally, given the magnitude of Act's potential scope and cost, and affected stakeholders' respective positions, it is not unreasonable to anticipate that the Act will be subject to further amendment or the FRA's final rule subject to judicial challenge.[44] In short, the scope of the implementation of PTC by UP and the other Class I railroads and the ultimate associated costs are extremely uncertain. This uncertainty extends to the specific movements at issue in this proceeding. Accordingly a "PTC cost adder" cannot be an "other relevant factor" in this proceeding because it is not possible to accurately quantify the impact of such costs on the presumptive maximum reasonable rates produced by application of the Three Benchmark Methodology.

C. Any PTC Costs UP Actually Incurs Will be Reflected in the Prescribed Rates in Any Event

In its Opening Evidence, UP admits that the costs it will expend to implement PTC will eventually be reflected in the URCS Phase III costing program.[45] UP is simply requesting to be paid its estimated costs in advance, and that this payment should largely be made by USM and UP's other TIH customers. USM has explained above why such payment should not be permitted by the Board in this case. As further explained in the Reply Verified Statement of Tom O'Connor, and in the proferred Joint Reply of A*mici*

[43] UP's estimate also assumes that all of the costs of UP's PTC implementation will be paid for by private funds, when public funding of PTC is already being discussed.
http://www.pe.com/local news/inland/stories/PE_News_Local_S_trainsafety12.454aa3d.html
http://www.goventura.org/files/DC%20leave%20behind%20FINAL.pdf
http://www.vcreporter.com/cms/story/detail/one_year_later_is_metrolink_safer_now/7237/

[44] The AAR's argument that the 2008 baseline year is contrary to the intent of the Act in particular appears to be a precursor to judicial challenge of the FRA final rule.

[45] UP Opening Evidence at 61-62.

Curiae, an additional reason for denying UP's request to categorize its estimated future PTC investment as an "other relevant factor" is that the rates prescribed in this proceeding will allow UP to recover any costs it eventually incurs to install PTC through the maintenance of the prescribed R/VC ratios and updates to URCS pursuant to the procedures recently outlined in STB Docket No. 42111, *Oklahoma Gas & Electric Co. v. Union Pac. R.R. Co.* (served July 24 2009) ("*OG&E*"). As UP incurs costs associated with installing PTC over the prescription period those costs will be captured in the adjusted URCS, which means that the prescribed rate levels paid by USM will increase in order to maintain the prescribed R/VC ratio. The Board's rate prescription process minimizes, if not eliminates, any regulatory lag in the prescribed rates. As Mr. O'Connor explains, the Board's quarterly indexing process minimizes, or even eliminates, the extent to which, for example, cost incurred in 2009 are delayed in being captured in the URCS data. Contrary to what UP has proposed in this proceeding in Section V.B. of its Opening Evidence, the combination of using the most recent URCS data and indexing that data, according to the Board, "is a simple and unbiased approach."[46] Although the actual variable costs inevitably may be higher or lower, "there is no reason to conclude that [this] simple approach…will systematically skew the variable cost estimate in favor or either the shipper or the railroad."[47] The Board concluded that:

> this mechanism will provide certainty to the parties, avoid the expense of hiring consultants to perform an annual true-up, minimize ancillary disputes, and, in our judgment, strikes the proper balance between the desire for accuracy

[46] *OG&E* at 10.
[47] *Id*.

> and the time, expense, and burden of waiting for more accurate costing data to become available.[48]

Apart from being based on fundamentally flawed assumptions, and unnecessary in any event due to the Board's rate prescription process, the PTC estimated cost allocation proposal submitted by UP in its Opening Evidence under the guise of an "other relevant factor" is completely contrary to the intent and purpose of the Three Benchmark Methodology. The Three Benchmark Methodology is specifically designed to be cheaper and "cruder," than the stand-alone cost or simplified stand-alone cost methodology which is a tradeoff to enable smaller shippers like USM with smaller disputes to formally seek rate relief. UP's proposals are clearly an example of a category of purported "other relevant factor" evidence that the Board should not allow in these cases because it "unduly complicate[s] this process, which must be relatively simple and inexpensive to have any value."[49] Indeed, UP's proposals, if not curtailed by the Board, would set the troubling precedent of incorporating stand-alone cost principles and related analyses into Three Benchmark cases, thereby expanding the scope and cost of these case far beyond the Board's intentions. The most egregious example of this "SAC-creep" is UP's proposed inclusion in this case of a modified Discounted Cash Flow Model ("DCF") used in stand-alone cost cases to support its proposed "PTC annualized-revenue requirement."[50] Neither of the proposals submitted by UP are necessary or appropriate in this case given the foregoing discussion in this Reply. Similarly, the verified statement of Professor Marius Schwartz, Ph.D, who provides his "public policy perspectives as an

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[48] *Id*. at 10-11

[49] *Simplified Standards* at 22.

[50] UP Opening Evidence at 56. Similarly, UP's discourse on cross-subsidization and other CMP principles have no place in a Three Benchmark case.

economist" on UP's systemwide PTC-related proposal – but no testimony whatsoever on any specific aspect of this case – is the type of document more suited for a rulemaking proceeding or public hearing, not a Three Benchmark rate case.

Given the Board's rate prescription methodology from *OG&E*, there is no reason for the Board to entertain UP's alternative proposals and open the door for similar proposals in future rate cases. Nevertheless, out of an abundance of caution and for completeness, these aspects of UP's filing are also addressed in the Reply Verified Statement of Tom O'Connor.

IV. UP'S ATTEMPT TO APPLY A "COMMON CARRIER RATE ADJUSTMENT" IS WITHOUT FOUNDATION AND FLAWED

Almost as an afterthought, UP proposes that the presumed maximum reasonable rates for the issue movements produced by the Three Benchmark Methodology be further increased by over { } per carload pursuant to a "common carrier rate adjustment."[51] This adjustment is not proposed as an "other relevant factor" and so is truly an add-on offered outside of the parameters of the Three Benchmark Methodology outlined in *Simplified Standards*, and should be rejected. UP argues that such an adjustment is necessary because all of the movements in UP's comparison group were made under contract rates, and the Board included a statement in Simplified Standards that "holding everything else constant, a comparison group that consists of just common carrier traffic will be selected over a group that includes contract traffic."[52] This is an attempt by UP to capitalize on the fact that most TIH shipments presently move under contracts. Citing 21 year old and 29 year old Interstate Commerce Commission

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[51] UP Opening Evidence at 63-64.
[52] *Simplified Standards* at 83.

precedent dealing with the practice of filing contracts with the ICC, but noticeably not attempting applying such precedent to TIH movements, UP attempts to argue that there is a material distinction between contract transportation and common carrier transportation. However, as the Board knows, and noted in *Simplified Standards*, the distinctions between contract and common carrier transportation that existed two decades ago are almost non-existent.[53] Indeed, in USM's experience there is virtually no distinction in the operating parameters and service terms that apply to contract or common carrier transportation of TIH commodities, and UP cites none. While the Board indicated a preference for a comparison group consisting of all common carrier movements, it also stated that "we concur with commenting shippers that one cannot assume that contract rates provide no useful information as to the maximum lawful rate of the challenged movement."[54] The fact that most TIH movements are pursuant to contract should not be used to penalize USM and other TIH shippers who are forced to ship under common carrier rates in order to maintain the right to challenge the reasonableness of UP's rate setting practices.

In any event, UP's proposed adjustment calculations are inaccurate and flawed, primarily because the adjustment is based on the simple average of the percent differences between the average R/VC ratios for common carrier and contract traffic for each commodity in the confidential Waybill sample. This simplistic approach ignores

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[53] See *Simplified Standards* at 82-83 (acknowledging the observations of shippers "that common carrier traffic and contract traffic are increasingly similar, and they dispute the notion that no contract movement can be compared with a common carrier movement.")
[54] *Id.* at 83.

important factors such as volumes, and the inclusion of all commodity groups is contrary to the Three Benchmark comparability factors and skews the result.[55]

V. CONCLUSION

In conclusion, USM demonstrated in its Opening Evidence that the common carrier rate levels established by UP for the Eloy and Sahuarita movements are presumptively unreasonable and unlawful, and that the presumed maximum reasonable rate levels should be further reduced by the "other relevant factor" of UP's TIH pricing strategy as discussed in USM's Opening Evidence and the Verified Statements attached thereto. USM also demonstrated that the Board should increase the limit on rate relief that would otherwise apply in a Three Benchmark case.

In this Reply Evidence, USM has demonstrated (1) that its "Final Offer" comparison groups are superior to UP's comparison group and should be selected by the Board for the R/VC_{COMP} aspect of the application of the Three Benchmark Methodology to the issue movements; and (2) UP's proposed increases to the presumptive maximum reasonable rates arrived at through that methodology are without merit. Accordingly, USM hereby respectfully asks the Board to:

(1) find that UP's common carrier rates applicable to the transportation of chlorine between Rowley, UT and Eloy, AZ and Sahuaria, AZ are unreasonable;

(2) prescribe just and reasonable rates for the future applicable to the rail transportation of USM's traffic, pursuant to 49 U.S.C. §§ 10704(a)(1) and 11701(a);

(3) award USM reparations, plus applicable interest, in accordance with 49 U.S.C. § 11704 for unlawful rates set by UP for the period beginning March 3, 2009 to

[55] Hillebrand Reply VS at 21-23.

(4) order that the limit on relief in this proceeding shall be $2,000,000 over the five year prescription period; and

(5) grant to USM such other and further relief as the Board may deem proper under the circumstances.

Respectfully submitted,

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Dated: September 22, 2009

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

PART II – REPLY VERIFIED STATEMENTS

1) Reply Verified Statement of Howard I. Kaplan, Vice President Chemicals and By-Products at US Magnesium, L.L.C., Rowley, Utah

2) Reply Verified Statement of Kim N. Hillenbrand, Senior Analyst at the economic consulting firm of Snavely, King, Majoros, O'Connor & Bedell, Inc., Washington, D.C.

3) Reply Verified Statement of Tom O'Connor, Vice President at the economic consulting firm of Snavely, King, Majoros, O'Connor & Bedell, Inc., Washington, D.C.

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

REPLY VERIFIED STATEMENT OF HOWARD I. KAPLAN

My name is Howard I. Kaplan. I am currently employed by US Magnesium, LLC (”USM”) as a contractor with the title of Vice President, Chemicals and By-Products at USM's Rowley, Utah production facility located on the shores of the Great Salt Lake, 60 miles from Salt Lake City. I am the same Howard Kaplan who testified via a verified statement in the above case on behalf of USM in the Opening Evidence round of this case, and have read the version of the opening evidence by the Union Pacific Railroad Company ("UP") I am entitled to see under the Protective Order in place in this proceeding.

In its opening evidence, UP asserts that anticipated future costs for Positive Train Control ("PTC") installation and operation was part of the factors that UP considered in increasing our rates for chlorine shipments. UP further stated that it communicated this purported additional revenue need to its other Toxic by Inhalation Hazardous ("TIH") shippers and they concurred with rate increases to cover future PTC costs, and that USM was the only TIH shipper that had not accepted this concept. Tellingly, UP never asserts that it specifically discussed PTC implementation costs as a reason for rate increases with USM.

USM obviously is not privy to UP's discussions with its other individual TIH customers. However, I can testify that I have participated in all rate discussions between UP and USM and UP never mentioned PTC in any discussions with USM. To the best of my knowledge, PTC was never cited as any reason for UP's desire to increase rail rates for shipment of USM's chlorine. In my view, the only reasons UP sought to impose the significant rate increases described in my Opening Verified Statement was to bring USM to a level pre-determined by UP based on monopolistic and predatory pricing, and because UP can if it is not checked by this Board. The increases they seek have not been based on costs, only what they feel the market can bear given their monopolistic hold on service to USM. As a specific example of the absence of PTC in any discussions with USM, UP gave a general business presentation to USM at the end of 2007 in the context of 2008 rate discussions. PTC was never mentioned in this presentation. The presentation is attached to this Reply Verified Statement, as well as my internal contemporaneous memorandum on the meeting as Exhibit __ (HK-1). Neither document mentions PTC.

Finally, installation of PTC is not required until the end of 2015. It is necessary to improve rail safety in general, and the costs should not be arbitrarily loaded onto chlorine shipments in any case, but should be spread among all traffic.

Verification Page

I, Howard I. Kaplan, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to sponsor this testimony.

Executed, September 20, 2009.

Howard I Kaplan

____

Howard I. Kaplan

HIGHLY CONFIDENTIAL
EXHIBIT ___ (HK-1) REDACTED

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

Reply Verified Statement

of

Kim N. Hillenbrand

September 22nd, 2009

PUBLIC VERSION

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PUBLIC VERSION

List of Exhibits

I. Introduction

My name is Kim N. Hillenbrand of Snavely King Majoros O'Connor & Bedell, Inc. I am the same Kim N. Hillenbrand who filed a verified statement in this proceeding on August 24, 2009 on behalf of U.S. Magnesium L.L.C ("USM"). My qualifications and experience can be found in Exhibit___ (KNH-1) to my Opening Verified Statement.

USM filed a rate reasonableness complaint[1] at the Surface Transportation Board ("STB" or "Board") against the Union Pacific Railroad Company ("UP") seeking the establishment of reasonable rates and the payment of reparations for shipments of chlorine from USM's Rowley, Utah facility to the following two (2) destinations: (1) Eloy, Arizona ("Eloy Movement" and Sahuarita, Arizona ("Sahuarita Movement").

USM has elected that the reasonableness of the rates for the issue movements listed above be evaluated using the Three Benchmark ("3B") Methodology described and adopted in STB Ex Parte 646, *Simplified Standards for Rail Rate Cases* (served September 5, 2007) ("*Simplified Standards*").

In my Opening Verified Statement, I was requested by USM to (1) calculate the Revenue to Variable Cost Ratios ("R/VC") for the issue movements; (2) apply the 3B Methodology to determine the maximum R/VC and rate for each issue movement; and (3) determine, pursuant to *Simplified Standards*, if other relevant factors warranted adjustments to the maximum R/VC and rate produced by my analysis.

For this Reply Verified Statement, I reviewed the Opening Evidence submitted by UP in this proceeding and I reply to certain aspects of that evidence. Specifically, I have analyzed and summarize herein certain deficiencies in UP's evidence. I also explain

[1] STB Docket No. 42114, *U.S. Magnesium L.L.C v. Union Pacific Railroad Company*.

USM's final tender comparison groups and why they are superior to UP's single comparison group.

II. Revenue to Variable Cost Ratios for the Issue Movements

When evaluating the reasonableness of a rate under the 3B Methodology, the first step is to calculate the R/VCs for the issue movement.

A. The Challenged Rates

USM and UP agree that the total challenged rate levels, including fuel surcharges, for the Eloy and Sahuarita movements are $13,396 and $10,410 per car load, respectively. [2]

B. URCS Phase III Variable Costs

To calculate the variable costs of the Eloy and Sahuarita movements using the STB's Uniform Railroad Costing System ("URCS") without adjustments ("unadjusted URCS"), UP and USM followed procedures described in *Major Issues* and *Simplified Standards*.[3] Exhibit___ (KNH-10) compares the nine (9) operating inputs for the URCS Phase III program analysis mandated by the Board to calculate the variable cost for the issue movements and resulting variable costs.

There is only one difference between the nine URCS Phase III inputs I used to calculate the variable costs of providing rail service from Rowley, UT to each destination and nine inputs used by UP. That is the difference in loaded miles. Table I below shows the differences between USM's and UP's loaded miles.

[2] *See* Table I of Hillenbrand VS and UP Opening Evidence at 18.
[3] 49 U.S.C. § 10707(d)(1)(B); Ex Parte 657 (Sub-No.1), *Major Issues in Rail Rate Cases* (Served October 30, 2006) at 60 ("*Major Issues*); *Simplified Standards* at 26.

Table I

Ln	Destination	USM Opening Miles	UP Opening Miles	Difference
[1]	[2]	[3]	[4]	[5]=[3]-[4]
1.	Eloy	1,325	1,290	35
2.	Sahuarita	1,260	1,250	10

Source
[3] & [4] Exhibit___ (KNH-10)

I calculated the loaded miles for the issue movements using summary trip plans from UP's { } result, track charts, and time tables provided by UP in their initial disclosures and discovery.[4] UP calculated the loaded miles using UP's { } which calculated the route miles between USM's Rowley facility and the issue destinations.[5]

Both parties used 2007 URCS unit costs to calculate the variable costs, indexed to the first quarter 2009, for the issue movements.[6] Table II below computes the differences between the variable costs I calculated for USM's issue movements in my Opening Verified Statement and the variable costs presented in UP's Opening Evidence.

[4] See electronic confidential workpaper {" ".}

[5] See UP Opening Evidence Highly Confidential Electronic workpapers {" ".}

[6] There were some minor differences between the composite indexed used in my Opening Verified Statement. I have chosen to accept UP's composite index for the first and second quarters of 2009 because the outputs are identical to the composite index calculated by the STB in the recent decision in STB Docket NOR 42111, *Oklahoma Gas & Electric Company v. Union Pacific Railroad Company* (served July 23, 2009) and STB docket No. 42088 (Sub-No.1), *Western Fuels Association, Inc. and Basin Electric Power Cooperative v. BNSF Railway*(served July 23, 2009).

Table II

Ln	Destination	USM Opening 1Q2007 Variable Cost	UP Opening 1Q2007 Variable Cost	Difference
[1]	[2]	[3]	[4]	[5]=[3]-[4]
1.	Eloy	$2,598.11	$2,548.73	$49.38
2.	Sahuarita	$2,495.47	$2,485.43	$10.04

Source
[3] & [4] Exhibit___ (KNH-10)

Since all other inputs were the same, differences in variable cost were driven by the difference in loaded miles inputs into the URCS Phase III cost model.

I have modified my calculation of the variable costs to reflect the loaded miles in UP's Opening Evidence for the issue movements. I believe that UP's calculation of the loaded miles for the issue movements are more accurate. The variable costs of providing rail service from Rowley, UT to Eloy, AZ and Sahuarita, AZ, respectively, are shown in Table III below.

Table III

Ln	Destination	Restated USM 1Q2008 Variable Cost
[1]	[2]	[3]
1.	Eloy	$2,548.73
2.	Sahuarita	$2,485.43

Source
[3]Exhibit___ (KNH-10)

C. Issue Movement R/VC Ratios

Table IV below compares the R/VC ratios I calculated for the Eloy and Sahuarita issue movements in my Opening Verified Statement with the R/VC ratios presented in UP's Opening Evidence.

Table IV

Ln	Destination	USM Opening 1Q2008 R/VC	UP Opening 1Q20087 R/VC	Difference
[1]	[2]	[3]	[4]	[5]=[3]-[4]
1.	Eloy	516%	526%	-10%
2.	Sahuarita	417%	419%	-2%

Source
[3] & [4] Opening Verified Statement, Table IV and UP Opening Evidence, Table 3

After recalculating the variable cost using the loaded miles in UP's Opening Evidence, I have recomputed the R/VC ratios for the issue movements.

Table V

Ln	Destination	Total Rate per Carload	Restated USM 1Q2008 Variable Cost	Restated USM 1Q2008 R/VC
[1]	[2]	[3]	[4]	[5]=[3]/[4]
1.	Eloy	$13,396	$2,549	526%
2.	Sahuarita	$10,410	$2,485	419%

Source
[3] Opening Verified Statement, Table I
[4] Table III

The R/VC ratios for the Eloy and Sahuarita movements are 526% and 419%, respectively.

III. Rate Reasonableness Determination for Issue Movements

In this section, I summarize my application of the 3B Methodology specified in *Simplified Standards* and applied by the Board in other rate cases using the *Simplified Standards*[7] to the issue rates from my Opening Verified Statement. I compare my application with that of UP in its Opening Evidence. My analysis and development of the maximum reasonable rate for the issue movements are described in the following four sections:

A. Comparison of USM and UP R/VC_{COMP} Groups;
B. Analysis of UP R/VC_{COMP} Group;
C. USM Final Offer Comparison Groups; and,
D. Maximum R/VC Ratios and Rates.

A. Comparison of USM and UP R/VC_{COMP} Groups

In my Opening Verified Statement, I included separate comparison groups for the Eloy and Sahuarita issue movements. UP, in its Opening Evidence, presented the same comparison group for both issue movements.

Exhibits____ (KNH-11) and (KNH-12) compare my initial R/VC_{COMP} groups for the Eloy and Sahuarita movements, respectively, with the single comparison group submitted by UP. Each exhibit is separated into two sections. The first section presents the movements in USM's initial R/VC_{COMP} group, identifies the few movements that were included in UP group, and specifies the reasons why UP excluded the remaining

[7] STB Docket Nos. 42099, 42100, and 42101, *E.I DuPont de Nemours and Co. v. CSXT Transportation, Inc.*, (all served June 27, 2008).

movements. The second section lists the movements in UP's comparison group, identifies the movements that are also in USM's group and shows the reasons why I excluded the remaining movements from the USM list.

In the first section of Exhibit___ (KNH-11) and Exhibit___ (KNH-12), the movements highlighted and labeled "common" indicate that the movement is included in both UP's and USM's initial R/VC_{COMP} groups. Movements labeled with a "1" and/or "2" are movements that are included in my initial R/VC_{COMP} groups, but were not included in UP's opening group. I used UP's selection criteria to show the reasons UP excluded the remaining movements from its list. There are two reasons:

1. Commodity other than Chlorine (STCC 2812815 or STCC 4920523);
2. Tank Cars with a capacity greater than 22,000 gallons.

The second section in Exhibit___ (KNH-11) and Exhibit___ (KNH-12) lists movements from UP's opening comparison group. Movements highlighted and labeled "common" indicate that the movement is included in both UP's and my initial R/VC_{COMP} groups. Again, the movements labeled with a "1" and/or "2" are included in UP's opening R/VC_{COMP} groups but were excluded from my Opening R/VC_{COMP} groups. I have indicated by number, using the selection criteria from my Opening Verified Statement, why particular movements have been excluded from my opening R/VC_{COMP} group using the following descriptions:

1. The movement fell outside the mileage criteria listed in Table V of my Opening Verified statement;
2. The movement had a re-bill code other than "0".

USM's opening R/VC_{COMP} group for the Eloy movement contained { } movements while UP's opening R/VC_{COMP} group contained only { } of which there were only { } movements in common with my Eloy R/VC_{COMP} group. USM's opening

R/VC_{COMP} group selected for the Sahuarita movement contained { } comparable movements with only { } movements in common with UP's opening R/VC_{COMP} group of { } movements.

B. Analysis of UP R/VC_{COMP} Groups

In this section, I analyze and compare the criteria I used to select the movements in my initial two opening R/VC_{COMP} groups with the criteria used by UP for its one opening R/VC_{COMP} group. I will demonstrate why selection criteria I applied are correct and a superior approach to those of UP's.

Both UP and I selected our respective opening R/VC_{COMP} groups from the STB unmasked confidential Waybill Sample for the years 2004 through 2007. In my Opening Verified Statement, at pages 9 through 12, I explain the process for selecting comparable movements for R/VC_{COMP} groups for the Eloy and Sahuarita movements. In its Opening Evidence, UP describes how it selected its single comparison group for the issue movements on pages 20 through 30.

1 Selection Criteria used by Both Parties

Table V of my Opening Verified Statement and Table 3 of UP's Opening Evidence lists comparability criteria for selecting the movements for the R/VC_{COMP} groups for the Eloy and Sahuarita movements. Three selection factors from UP's Opening Evidence are the same as those in my Opening Verified Statement. First, following the Board's guidelines in *Simplified Standards*, both R/VC_{COMP} groups are limited to movements with R/VC ratios greater than 180 percent. Second, since the issue movements are transported in privately owned tank cars, both comparison groups are limited to movements moving in private tank cars. Third, both parties excluded the issue traffic from their respective R/VC_{COMP} groups.

2. Selection Criteria Used by UP that Make its Group Inferior to USM's Groups

a. Rebilled Movements

USM's comparison groups include only movements that are local to UP.[8] Since UP provides single line service to both issue movements, meaning that the movements originate and terminate on the UP, comparable movements should be limited to UP local movements. For this reason, I excluded any movements that did not have a rebill code that equaled "0". Movements with a rebill code "1", "2", or "3" are interline movements that have been rebilled by UP, including Rule 11 rates.

UP included interline rebilled traffic, but excluded interline traffic that had revenues allocated using the STB's mileage based allocation revenue methodology.[9] These selection criteria results in a traffic group that is not comparable to the issue movements.

Only single line UP traffic has similar transportation and cost characteristics to the issue movements. Single line movements are costed using the shipment type input in URCS "Originate and Terminate," meaning that the shipment is moved by one railroad from origin to destination. The rebilled movements in UP's comparison group use the rebill codes (1) – originated-delivered and (3) – received-terminated. These movements, when costed using URCS, would use the shipment type "Originate and Deliver", meaning that the shipment is moved by the origin railroad and delivered to another railroad or "receive and deliver", meaning that the shipment is moved by the receiving railroad and

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[8] Hillenbrand Opening VS at Page 10 and Table V.
[9] See UP Opening Evidence at 21.

delivered at the destination. Rebilled movements have different cost of service characteristics than local movements. For example, the rebilled movements in UP's R/VC_{COMP} group would have an origin or destination terminal cost, line haul cost, and interchange cost, whereas UP single line movements would have an origin terminal cost, line haul cost, and destination terminal cost. These single-line costs are higher than the costs of rebilled movements of similar distances. The lower costs of rebilled movements would result in a higher R/VC ratio.

b. Car Type

The issue movements are transported in privately owned tank cars. The selection criteria for my initial R/VC_{COMP} groups limited the comparable movements to movements in privately owned tank cars.[10] UP's R/VC_{COMP} group only includes movements that are transported in private tank cars with a capacity less than 22,000 gallons. UP reasons that this selection is justified because the issue movement is transported in private tank tanks cars that hold under 22,000 gallons.

However, as explained below, the appropriate R/VC_{COMP} group for a chlorine movement is a group that includes all TIH commodities transported by tank car. It is appropriate to include all tank car types. The Board favors "a comparison group that consists of movements of like commodities [in USM's case TIH commodities transported in tank cars] so the variable cost calculation of the issue movement and the comparison group will be similar."[11] Including all tank cars, regardless of capacity, is the correct approach because the costs of service associated with both car types very similar. To demonstrate the fact, I analyzed the variable cost similarities between the two car types

[10] Opening Verified Statement at 10-11.
[11] *Simplified Standards* at 17.

by calculating the variable costs using unadjusted URCS. I used input parameters of the issue movements to cost both car types at 50 mile increments creating a range of variable costs from 50 to 2000 miles. I charted the results of my analysis on a cost per ton mile basis in Exhibit___ (KNH-13). On average, the difference between the cost of service for the two car types is only around 4%.[12] The small difference in the cost of service between the two car types supports the inclusion in an R/VC_{COMP} group for chlorine movements of private tank cars that hold more than 22,000 gallons.

c. Length of Haul

In my opening statement, I included comparable movements with similar lengths of haul to the issue traffic in my R/VC_{COMP} groups. This is in accordance with one of the comparability factors listed in *Simplified Standards*. The length of movement selection criteria in my R/VC_{COMP} groups for the Eloy and Sahuarita movements is within a range of plus or minus 200 miles of the loaded miles of each of the issue movements.[13] In my Opening Verified Statement, the mileage range for the Eloy comparison group was 1125-1525 miles and for the Sahuarita comparison group was 1060-1460 miles. After accepting the UP loaded miles, the new mileage range for the Eloy movement is 1090-1490 miles and for Sahuarita is 1050-1450.

In contrast, UP "limited" the comparable movements it selected in its one R/VC_{COMP} group by including movements that are within the range of plus or minus 400 miles of the issue traffic's loaded length of haul, for a total possible range of 800 miles,

[12] *See* electronic workpaper {" ".}

[13] This mileage range is similar to the mileage range in the R/VC_{COMP} group accepted by the STB in STB Docket No. 42100, *E.I DuPont de Nemours and Co. v. CSXT Transportation, Inc.*, (served June 27, 2008)("*DuPont*"). The accepted R/VC_{COMP} group used a mileage range of plus and minus 150 from loaded miles, rounded to the nearest 50 miles, for the issue movements. Instead of rounding the loaded miles to the nearest 50 miles, I have added 50 miles to mileage range.

around 80% of the actual length of the issue movements.[14] UP attempts to justify the extremely wide mileage range of its R/VC_{COMP} group based on the theoretical possibility that "repeated application of the Three-Benchmark approach could have a feedback effect that could act to lower the mean for future cases."[15]

The UP mileage range in this case is far too broad and is double the size of the mileage range criteria I used in selecting the comparable movements for the R/VC_{COMP} groups for the Eloy and Sahuarita movements. The lengths of the movements in UP's R/VC_{COMP} group range from { } miles to { } miles, meaning there are almost { } miles between the shortest and longest movement in UP's R/VC_{COMP} group. The selection criteria in my opening verified statement creates a more realistic range of mileages. For the comparable movements for the Eloy R/VC_{COMP} group the actual mileage range is { } to { } miles with { } miles between the shortest and farthest movement. In the Sahuarita R/VC_{COMP} group, the mileage ranges for the comparable movements is { } to { } with only { } miles between the shortest and longest movements.

I have analyzed the difference in costs between the respective R/VC_{COMP} groups using the analysis I did in the previous section. First, I rounded each of the actual mileages for the shortest and longest movement in each of the R/VC_{COMP} groups to the nearest 50 miles. Next, I computed the average cost per mile of the two car types using unadjusted 2007 URCS. I then compared average cost per ton mile ranges for each of R/VC_{COMP} groups. The results are shown in Table VI below.

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[14] UP Opening Evidence at 22.
[15] *Id.*, citing *Simplified Standards* at 73.

Table VI

		Average Cost per Ton Mile		
Ln	Destination	Shortest Distance	Farthest Distance	Percent Difference
[1]	[2]	[3]	[4]	[5]=[3]/[4]-1
1.	USM Eloy	{ }	{ }	6.3%
2.	USM Sahuarita	{ }	{ }	6.8%
3.	UP Opening	{ }	{ }	11.8%

Source
[3] & [4] "Tank Car Analysis.xls"

Table VI above shows that USM's Eloy's R/VC_{COMP} group has an average cost per ton mile range of { } with only 6.3% difference in variable cost. The Sahuarita R/VC_{COMP} group has a 6.8% difference in variable cost between the comparable movements. In contrast, the average variable cost per ton mile difference between the shortest and longest comparable movement in UP's R/VC_{COMP} group is 11.8%. This difference shows that the movements in UP's R/VC_{COMP} group do not have similar cost characteristics to the issue movements and are therefore not comparable.

Accordingly, the mileage range I used for selecting my R/VC_{COMP} groups is consistent with STB's preference for a "comparison group that consists of movements of like commodities so the variable cost calculation of the issue movement and comparison group will be similar" with the length of haul being a comparability factor.[16]

[16] *Simplified Standards* at 17.

d. Commodity

Following the Board's guidance in *Simplified Standards*, as applied in *DuPont*, in my Opening Verified Statement I applied a selection criterion to develop a comparison group of similar commodities with similar movement characteristics to each of the Eloy and Sahuarita movements. The issue movements involve the transportation of chlorine, which is classified by the United States Department of Homeland Security as a Toxic by Inhalation ("TIH") commodity. I therefore limited my R/VC_{COMP} groups for the issue movements to contain comparable movements of TIH commodities. UP developed its single R/VC_{COMP} group for the two issue movements using shipments of chlorine as the sole commodity in its selection criteria. In limiting its R/VC_{COMP} group to only movements of chlorine, UP incorrectly reasoned that "no other commodity moves in a product market similar enough to chlorine that meaningful information about the appropriate demand-based differential pricing levels for chlorine could be derived by comparing R/VC ratios for movements of that commodity with R/VC ratios for movements of chlorine."[17] UP argues that chlorine operates in its own product market making it not comparable to other TIH commodities.[18] Other justifications offered by UP for restricting the comparable commodity to chlorine shipments are that chlorine is an "especially dangerous commodity, even as compared with other TIH materials," chlorine has fewer modal alternatives, and chlorine has fewer product substitutions.

The STB has previously ruled, in *DuPont*, that the R/VC_{COMP} group for chlorine issue movements should not be limited solely to other chlorine movements.[19] Moreover, *Simplified Standards* states that the R/VC_{COMP} group should consist of similar

[17] UP Opening Evidence at 23
[18] *Id*. at 25-27
[19] *DuPont* at 8.

commodities moving under similar transportation conditions as other TIH commodities. UP does not dispute that chlorine movements and other TIH commodities move under similar transportation conditions. However, UP claims that chlorine as a commodity cannot be compared to other TIH commodities because they have different degrees of demand elasticity for purchasing rail transportation. The STB previously dealt with this issue in *Simplified Standards,* when it stated that "the comparison group need not have movements with identical demand in reviewing the comparability of an R/VC_{COMP} group."[20]

I included all TIH commodities because they have similar transportation and safety characteristics and the fact that they all have similar degrees of demand elasticity. In *Rate Guidelines – Non-Coal Proceedings*, 1 S.T.B. 1011 (1996) 1035 n.90, the STB explained:

> The comparison traffic must involve a commodity that is not readily susceptible to transportation by another available mode (at least at the distances involved in the complaint). Because rail-dependent traffic usually does not have a choice between two rail carriers for the entire move, a commodity that requires rail service is likely to be subject to a railroad's market power. It is thus fair to presume that properly-selected comparison traffic will have a similar degree of demand elasticity.

TIH commodities in the USM R/VC_{COMP} groups are all rail dependent traffic and since they are subject to UP's market power, chlorine and all TIH commodities all have a similar degree of demand elasticity. In *DuPont*, CSXT sought to limit its R/VC_{COMP} groups to only shipments of chlorine, while DuPont submitted R/VC_{COMP} groups that included chlorine and other TIH shipments. The STB concluded:

> a more appropriate comparison group should include all TIH shipments, rather than a narrowly tailored group of chlorine movements alone. CSXT has offered no evidence that chlorine must be handled differently than any

[20] *Simplified Standards* at 17.

> other TIH chemical moving in tank cars. Indeed, the Federal Railway Administration and the Pipeline and Hazardous Materials Safety Administration do not treat the transportation of chlorine differently from the transportation of any other TIH product.[21]

In *DuPont*, the STB stated its preference to include other TIH commodities in the R/VC_{COMP} groups. The selection criteria I applied to include TIH commodities movements as comparable movements for the R/VC_{COMP} groups for the issue movements is correct and is a superior approach to UP's.

C. USM Final Offer Comparison Group

In this section I describe the adjustments I have made to USM's final R/VC_{COMP} groups for the issue traffic.

1. Modification of the Eloy R/VC_{COMP} group

For the reasons mentioned in section III.B, I have not changed the selection criteria from those in my Opening Verified Statement and did not make modifications to the comparable movements in the R/VC_{COMP} group for the Eloy movement. Since I accepted UP's calculation of the loaded miles, I reapplied the mileage selection criteria. When applying the new mileage range, two movements fell outside the new mileage range. However, pursuant to *Simplified Standards* these two movements remain in USM's Final Offer Comparison Group because both movements were included in both USM's and UP's opening R/VC_{COMP} group.[22] USM's R/VC_{COMP} group for the Eloy movement contains { } movements. Included in the R/VC_{COMP} groups are { } common

[21] *DuPont* at 8-9 (footnote omitted). The Board then states that chlorine "is indeed a dangerous chemical, and accidents involving chlorine expose railroads to litigation risk. But there are many other dangerous chemicals, and we believe that a broader comparison group that includes these other TIH chemicals would provide a more reasonable guide for the contribution to joint and common costs that the movements at issue should bear."
[22] *Simplified Standards* at 18.

movements with UP's initial R/VC_{COMP} group. USM's Final Offer Comparison Group for the Eloy issue movement can be found in Exhibit___ (KNH-14).

2. Modification of the Sahuarita R/VC_{COMP} group

For the reasons mentioned in section III.B, I have not changed my selection criteria from those in my opening verified statement and did not make modifications to the comparable movements in the R/VC_{COMP} group for the Sahuarita issue movement. As with the Eloy movement, since I accepted UP's calculation of the loaded miles, I reapplied the mileage selection criteria, but this did not affect my original selection of comparable movements. USM's R/VC_{COMP} group for the Sahuarita movement contains { } movements. Included in the R/VC_{COMP} group are { } common movements with UP's initial R/VC_{COMP} group. USM's Final Offer Comparison Group for the Sahuarita issue movement can be found in Exhibit___ (KNH-15).

D. Maximum R/VC Ratios and Rates

In accordance with *Simplified Standards,* to calculate the maximum R/VC for each of the two issue movements, I first adjusted each movement in each of the comparison groups by the 1.41 revenue need adjustment ratio of RSAM ÷ $R/VC_{>180}$.[23] Next, I calculated the mean and standard deviation of the R/VC ratios for each adjusted comparison group. Using the mean and standard deviation of each adjusted comparison group, I next calculated the 90% confidence interval around the estimate of the mean. This determines the upper boundary level of the mean estimate of each comparison group. The challenged rate is presumed unreasonable if the challenged rate's R/VC ratio is greater than the upper boundary mean of the adjusted comparison group.[24]

[23] See Opening Verified Statement, Table VI and Exhibit___(KNH-6)
[24] *Simplified Standards* at 21.

Table VII shows my computations of the maximum reasonable rates and maximum R/VC ratios for USM's Eloy and Sahuarita movements.

Table VII
Maximum Rate and R/VC 1Q 2009

Ln	Item	Eloy	Sahuarita
1.	Issue Rate per Carload	$13,396	$10,410
2.	Variable Cost - 1Q 2009	$2,549	$2,485
3.	R/VC	526%	419%
4.	Maximum R/VC	311%	302%
5.	Maximum Rate per Carload	$7,920	$7,501
6.	Rate Reduction per Carload	$5,476	$2,909

Source
Ln.1 Table I
Ln.2 Table III
Ln.3 = Ln.1 ÷ Ln.2
Ln.4 Exhibit___ (KNH-14) and Exhibit___ (KNH-15)
Ln.5 = Ln.2 x Ln.4
Ln.6 = Ln.1 - Ln.5

The maximum rates for USM's issue movements are $7,920 per carload for the Rowley to Eloy Movement and $7,501 per carload for the Rowley to Sahuarita Movement.

IV. Other Relevant Factors

A. UP's Common Carrier Mark Up Factor

In its Opening Evidence, UP has proposed an adjustment to the presumed maximum reasonable rates based on an alleged "other relevant factor" UP calls a "common carrier rate adjustment factor."[25] UP claims that since all of the comparable movements in its opening R/VC_{COMP} group are contract rates, they need to be adjusted because they are allegedly not comparable to challenged common carrier rates. This is an inappropriate adjustment for a number of reasons. First, while the STB stated a

[25] UP Opening Evidence at 63-65.

preference for an R/VC_{COMP} group with all common carrier rates in *Simplified Standards*, the Board has realized there may be limitations on creating such a group. Workpapers from UP's Opening Evidence show that within certain commodity groups, common carrier movements are very rare and could be outliers in the commodity group. In other commodity groups, there might be some balance between shipments using common carrier rates and contract rates. Finally, other commodity groups ship only by common carrier rates.

An R/VC_{COMP} group with only contracts can be used to determine the reasonableness of a common carrier rate. In *Simplified Standards*, the Board stated "we concur with commenting shippers that one cannot assume that contract rates provide no useful information as to the maximum lawful rate of the challenged movement."[26] This is especially true for TIH rail transportation, where the purchase of rail transportation is demand inelastic and the shipments have comparable operating characteristics.

Moreover, UP's common carrier adjustment procedure is flawed and contrary to the Three Benchmark methodology comparability purposes**.** The RSAM and $R/VC_{>180}$ Benchmarks contains common carrier rates which means that $RSAM \div RVC_{>180}$ revenue need adjustment will account for the difference in common carrier and contract rates. UP's {   } common carrier markup is overstated because it is calculated using the simple average of the calculated percent difference between the average R/VC ratios for common carrier and contract traffic for each commodity group in the confidential Waybill sample provided to the parties in this case[27]. The correct approach is to take into account volume and use a weighted average. To demonstrate this, I calculated the

[26] *Simplified Standards* at 83.
[27] UP Opening Evidence at 64

weighted average (by carloads) of the percent difference of between average R/VC ratios for each traffic group which resulted in a { } mark up.[28] UP's generalized statement that common carrier rates are higher than contract rates is incorrect. The weighted average (by carloads) R/VC of common carrier rates is in fact lower { } than contract rates { } in UP's analysis, the percent difference is { }. A review of UP's analysis shows that common carrier rates are lower than contract rates for many commodity groups. The only way to calculate what the mark up/down between contract and common carrier rates would be undertake a special study. This would be burdensome for both parties and outside the scope of a Three-Benchmark case.

B. USM's TIH R/VC>180 Benchmark

In my Opening Verified Statement, I presented one "other relevant factor" that should be applied to reduce the presumed maximum reasonable rate for USM's Eloy and Sahuarita movements. On pages 14-17, I described the methodology I used to quantify how the presumed maximum reasonable rate for both movements should be further adjusted downward to more accurately reflect the disproportionate share of UP's overall revenue need currently paid by the subset of TIH commodities ("R/VC_{COMP} Criteria TIH R/VC>180 Adjustment"). My methodology remains unchanged, but due to my adjustment of the variable costs of the issue movements, I have recalculated the maximum reasonable rates for the Eloy and Sahuarita movements.[29]

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[28] *See* USM electronic workpaper "Analysis of UP Common Carrier Adjustment"
[29] See Exhibit___ (KNH-16) and Exhibit___ (KNH-17)

Table VIII
Maximum Rate and R/VC 1Q 2009 w/ Comp Group TIH Benchmark

Ln	Item	Eloy	Sahuarita
1.	Issue Rate per Carload	$13,396	$10,410
2.	Variable Cost - 1Q 2009	$2,549	$2,485
3.	R/VC	526%	419%
4.	Maximum R/VC	{ }	{ }
5.	Maximum Rate per Carload	{ }	{ }
6.	Rate Reduction per Carload	{ }	{ }

Source
Ln.1 Table I
Ln.2 Table III
Ln.3 = Ln.1 ÷ Ln.2
Ln.4 Exhibit___(KNH-16) and Exhibit___(KNH-17)
Ln.5 = Ln.2 x Ln.4
Ln.6 = Ln.1 - Ln.5

The results of my calculation using the R/VC_{COMP} Criteria TIH R/VC>180 Adjustment are in Table VIII above. The maximum reasonable rate using the R/VC_{COMP} Criteria TIH R/VC>180 Adjustment for the Rowley, UT to Eloy movement is { } and the maximum reasonable rate for the Rowley to Sahuarita movement is { }.

V. Maximum Reasonable Rate – Conclusion of the Analysis

I conclude that USM's Final Tender comparison groups for the issue movements are superior to UP's single comparison group and should be adopted for use in the case. Further, the rates charged by the UP are unreasonable under the application of the Three Benchmark methodology as described under *Simplified Standards*. Table VIII above summarizes the maximum rate and R/VC calculations in this statement.

Verification

I declare under penalty of perjury that the foregoing is true and correct. I further certify that I am qualified and authorized to sponsor and file this testimony.

Executed on September 22, 2009

Kim N. Hillenbrand

Comparison of USM and UP Variable Cost and URCS Inputs

Variable Cost Calculations

Origin	Rowley, UT
Destination	Eloy, AZ

	Cost Item	US Magnesium 2007 URCS Phase III Costs	Union Pacific 2007 URCS Phase III Costs	2q 2009 Index Factor
	[1]	[2]	[3]	[4]=[2]-[3]
1.	Variable Cost	$2,156.44	$2,106.44	$50.00
2.	Loss & Damage	$1.46	$1.46	$0.00
3.	Make Whole Adjustment	$473.33	$467.35	$5.98
4.	Total 2007 Variable Cost	$2,631.23	$2,575.25	$55.98
5.	1Q 2008 Composite Index	0.987	0.990	-0.002
6.	1Q 2008 Variable Costs	$2,598.11	$2,548.73	$49.38

Source
[2] Exhibit___(KNH-2)
[3] UP Workpaper "2007 URCS Eloy.PDF" &"STB Index UP 2007 URCS.xls"

URCS Phase III Inputs

URCS Input Item		US Magnesium	Union Pacific	Difference between USM and UP
	[1]	[2]	[3]	[4]=[2]-[3]
1.	Railroad	Union Pacific (UP)	Union Pacific (UP)	
2.	Type of Shipment	Originate and Terminate (OT)	Originate and Terminate (OT)	
3.	Loaded Miles	1325	1290	35
4.	Car Type (URCS Code)	Tank Car< 22,000 gallons	Tank Car< 22,000 gallons	
5.	Number of Cars	1	1	
6.	Car Ownership	Private	Private	
7.	Commodity Type (STCC)	281 - Industrial Chemicals	281 - Industrial Chemicals	
8.	Shipment Weight (Tons)	90	90	
9.	Movement Type	Single	Single	

Source
[2] Exhibit___(KNH-2)
[3] UP Workpaper "2007 URCS Eloy.PDF"

Comparision of USM and UP Variable Cost and URCS Inputs

Variable Cost Calculations

Origin	Rowley, UT
Destination	Sahuarita, AZ

	Cost Item	US Magnesium 2007 URCS Phase III Costs	Union Pacific 2007 URCS Phase III Costs	2q 2009 Index Factor
	[1]	[2]	[3]	[4]=[2]-[3]
1.	Variable Cost	$2,063.59	$2,049.31	14.28
2.	Loss & Damage	$1.46	$1.46	0.00
3.	Make Whole Adjustment	$462.23	$460.52	1.71
4.	Total 2007 Variable Cost	$2,527.28	$2,511.29	15.99
5.	1Q 2008 Composite Index	0.987	0.990	-0.002
6.	1Q 2008 Variable Costs	$2,495.47	$2,485.43	$10.04

Source
[2] Exhibit___(KNH-2)
[3] UP Workpaper "2007 URCS Sahuarita.PDF" &"STB Index UP 2007 URCS.xls"

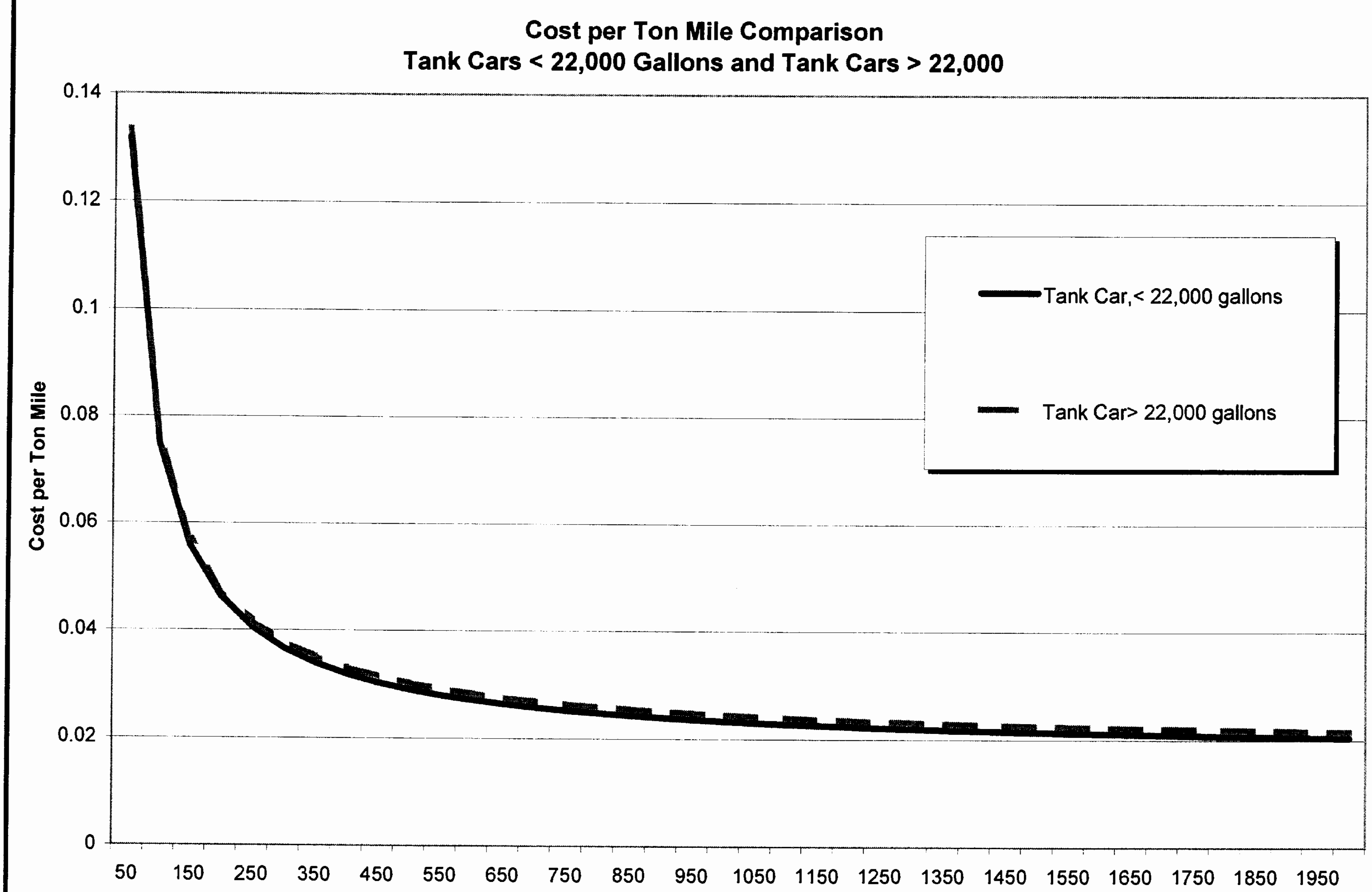
URCS Phase III Inputs

URCS Input Item		US Magnesium	Union Pacific	Difference between USM and UP
	[1]	[2]	[3]	[4]=[2]-[3]
1.	Railroad	Union Pacific (UP)	Union Pacific (UP)	
2.	Type of Shipment	Originate and Terminate (OT)	Originate and Terminate (OT)	
3.	Loaded Miles	1260	1250	10
4.	Car Type (URCS Code)	Tank Car< 22,000 gallons	Tank Car< 22,000 gallons	
5.	Number of Cars	1	1	
6.	Car Ownership	Private	Private	
7.	Commodity Type (STCC)	281 - Industrial Chemicals	281 - Industrial Chemicals	
8.	Shipment Weight (Tons)	90	90	
9.	Movement Type	Single	Single	

Source
[2] Exhibit___(KNH-2)
[3] UP Workpaper "2007 URCS Sahuarita.PDF"

HIGHLY CONFIDENTIAL
EXHIBIT ___ (KNH-11) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT ___ (KNH-12) REDACTED



Source: Electronic workpaper "Tank Car Analysis.xls"

HIGHLY CONFIDENTIAL
EXHIBIT ___ (KNH-14) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT ___ (KNH-15) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT ___ (KNH-16) REDACTED

HIGHLY CONFIDENTIAL
EXHIBIT ___ (KNH-17) REDACTED

PUBLIC VERSION

US MAGNESIUM, L.L.C.	)	
Complainant,	)	
v.	)	Docket No. NOR 42114
UNION PACIFIC RAILROAD COMPANY	)	
Defendant.	)	

Reply Verified Statement

of

Tom O'Connor

Table of Contents

I. Introduction

My name is Tom O’Connor; I am Vice President of Snavely King Majoros O’Connor & Bedell, Inc. (“Snavely King” or “SK”). Snavely King is an economic and management consulting company with offices located at 1111 14th Street NW, Suite 300, Washington DC 20005. Throughout Snavely King’s 39 year history our practice has focused on transportation, telecom and public utility industries. I also filed a Verified Statement on behalf of US Magnesium, L.L.C. (“USM”) as part of its Opening Evidence in this proceeding. A statement of my qualifications and experience was included as Exhibit No. (TOC__1) to my Opening Verified Statement.

USM has filed a rate complaint with the Surface Transportation Board (“STB” or “the Board”) prompted by a rate dispute involving US Magnesium and the Union Pacific Railroad Company (“Union Pacific” or “UP”). USM in that complaint has requested that the STB prescribe reasonable rates and award reparations, plus interest, to the extent that USM has paid common carrier rates in excess of a reasonable maximum for the transportation of chlorine (Standard Transportation Commodity Code or STCC 2812821) for the following issue movements:

- Rowley, Utah to Eloy, Arizona (“Eloy” movement)
- Rowley, Utah to Sahuarita, Arizona (“Sahuarita” movement)

USM has applied the Three-Benchmark methodology to define reasonable rail rates in this proceeding. The Three-Benchmark methodology was adopted by the STB pursuant to 49 U.S.C. §10701(d)(3), in Ex Parte No. 646 (Sub-No.1), *Simplified Standards for Rail Rate Cases* (served September 5, 2007) (“2007 Decision).

In this Reply Verified Statement I provide written testimony in reply to five areas of UP's Opening Evidence in this Proceeding:

1) The Verified Statement of Dr. Marius Schwartz;
2) UP's claims about the "market" for TIH rail shipments;
3) The extent to which Positive Train Control ("PTC") costs will be captured by the STB's rate prescription process;
4) The deficiencies in UP's cost estimates for its implementation of Positive Train Control ("PTC"); and
5) UP's flawed proposals for allocating estimated PTC costs.

In this Reply Verified Statement, I reach and support the following findings regarding these five issues:

1) The Verified Statement of Dr. Schwartz is unproductively theoretical; uninformed by the relevant data available in the case record, and consequently largely irrelevant to the fundamental issues of the case;
2) Contrary to UP's description of the "market" for TIH transportation, UP is operating in a regional monopoly with regard to US Magnesium and similarly situated shippers;
3) If and when UP incurs costs to install PTC, such will be captured by the Board's Uniform Rail Costing System, and the STB's rate prescription process;
4) UP's cost estimates for PTC are fatally deficient and unsupported; and
5) UP's proposals for allocating estimated PTC costs would improperly expand the scope of Three Benchmark cases far beyond the Board's expectations, and are flawed in any event.

II. Comments on the Verified Statement of Dr. Schwartz

A. General Approach

I have found the Opening Verified Statement of Dr. Marcus Schwartz ("Schwartz VS") deficient in each of the following structural components that are key parts of any expert testimony or report: (1) assumptions; (2) data; (3) methodology; and (4) findings. My overall conclusion is that the Schwartz VS is so limited and flawed as to be of little probative value to the Board in this case. The defects in each area are discussed below.

B. Assumptions

Some assumptions are of course necessary to the development of an analysis. However Dr. Schwartz extends the use of assumptions beyond what is either reasonable or productive. Dr. Schwartz also appears to have mis-understood or chosen to overlook the fundamental issue of this case, which is the reasonableness of two very specific rail rates. In contrast, Dr. Schwartz opens his Verified Statement with his objectives: two broad areas which are unrelated to the basic rate reasonableness issues:

> **Scope of Assignment and Overview of Conclusions**
>
> Large U.S. railroads have been required to undertake a costly investment program in Positive Train Control (PTC) systems to help prevent train collisions on lines carrying passengers or hazardous materials known as PIH or TIH (Poison Inhalation Hazards or Toxic Inhalation Hazards). In connection with this new requirement, I have been asked by Union Pacific Railroad Company to provide my public policy perspectives as an economist on two issues. First, would it be reasonable and appropriate for railroads to charge higher rates for TIH traffic than for other freight traffic in order to recover PTC costs? Second, would it be appropriate for railroads to begin charging higher rates even before they complete the investments required to implement PTC? I have not been asked to discuss specific magnitudes of appropriate rates, but to analyze the relevant economic principles.

(Schwartz VS at 2).

At the outset of his Verified Statement, Dr. Schwartz, for all practical purposes, defines his testimony as irrelevant to the basic rate reasonableness issues of the case. Moreover, in several instances Dr. Schwartz assumes concurrence of the finder of fact with assumptions which have not been previously presented and are, at best, weakly supported. A prime example of this is Dr. Schwartz's acceptance of the UP assumption that TIH shippers will bear 100% of the costs of installing PTC, an allocation which is still uncertain under the Rail Safety Improvement Act of 2008.

In other instances, Dr. Schwartz's assumptions are linked and compounded in a series of increasingly tenuous subjunctives. For example, Dr. Schwartz bases much of his argument on the conventional theory of consumer surplus and producer surplus. However, these concepts presume that the consumer has access to choice. In this case the consumer of railroad services, USM, has little or no access to choice. Indeed, the market for transportation of chlorine is typically characterized by the absence of choice. In this case, UP has admitted that USM has no choice but to ship its chlorine with UP; only UP serves USM's Rowley Utah facility and the two destinations at issue. There are no competing modes or intermodal alternatives. Accordingly, the competitive market theoretical underpinning of Dr. Schwartz's consumer surplus analysis is absent and its absence drains away much if not all of the practical merits of his conclusions.

The real world in this case involves one consumer of rail services: US Magnesium, a relatively small company shipping a small amount of chlorine to a limited set of destinations. The real world in this case also involves one of the largest railroads in the United States with billions of dollars in annual revenue and billions of dollars in annual income. A more stark contrast between the consumer of railroad services (USM) and the producer of railroad services (UP) could scarcely be imagined. Dr. Schwartz envisions the theoretical dynamics of a competitive market. The stark reality is a small company providing essential services while relying on a massively large company which holds them in the grip of a regional monopoly.

More instances of the defective use of assumptions occur in Dr. Schwartz's discussion of the equilibrium price at which the producer and the consumer are in balance both producing and using the desired quantity of the good.[1] As I have pointed out, the market we are dealing with is characterized by very limited choices. The choice often comes down to one railroad at one location offering one price on a "take it or leave it" basis. The railroad often has neither the inclination nor the requirement to moderate the price through negotiations or regulations. Again Dr. Schwarz presents a theoretical argument which has little relevance to the basic issues of the case.

C. Data

Dr. Schwartz's discussion is theoretical to the almost complete exclusion of data. This unfortunate choice of approaches relegates his analysis and its conclusions to being of very limited value in illuminating the basic issues of this case. Errors made by Dr. Schwartz include:

- Instances in which Dr. Schwartz's analysis was not based on facts or not based on complete facts.
- Instances in which Dr. Schwartz's analysis was based on misinterpretations of the facts.

For example, on page 19 of his testimony Dr. Schwartz discusses prices being set at a point at which they equal marginal cost. However, the record is abundantly clear that UP

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[1] Schwartz Verified Statement at 6.

had adopted a goal of setting prices at { } of variable cost or above that level.[2] Moreover the record is equally clear that UP pricing officers pursued those pricing objectives relentlessly. Dr. Schwartz's theory bears little if any resemblance to the real world in which UP and USM operate.

D. Methodology

The methodologies used by Dr. Schwartz often rely on incomplete facts. In some instances he has reviewed only part of the picture. His adoption and advocacy of the UP premise that UP "should be allowed" to start recouping its investment prior to actual system implementation is one such instance. The actual investment associated with PTC is not known, and the estimates offered by UP are unsupported by more than a few spreadsheets. Moreover the beneficiaries of that investment are unexamined, as are the size and scope and duration of such benefits. Dr. Schwartz apparently failed to note the many gaps in UP's PTC analysis. Dr. Schwartz recognized that railroads "price above marginal cost;" yet he chose to exclude this fact from his analysis because to include it "would complicate [the] graph" he presented on page 20 of his testimony. The graph thus loses any possibility of being relevant to the issues of the case.

Dr. Schwartz's focus on classical economic theory to the exclusion of any meaningful consideration of the facts of this case relegates his work to the level of a footnote. Ignoring the abundant and specific data describing the specific rate case he is testifying in is one of the major defects of his analytical methodology. The reasonableness, relevance, completeness and accuracy of Dr. Schwartz's analyses are clearly areas of concern for the finder of fact.

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[2] O'Connor Opening Verified Statement at 5-8.

E. Findings

The application of the analytical methodologies to the data leads one to findings. By this stage in the process errors and gaps in data and methodology can either be removed by judicious review or they can be compounded. Unfortunately, the seeds of the errors found in Dr. Schwartz's approach and methodology have borne fruit in his findings. Dr. Schwartz's positions are inconsistent and some are contradicted by his own statements and analysis. He initially accepts at page 4 of his Verified Statement the UP claim that "a large portion" of PTC costs are caused by TIH. Without adequately supporting that premise, he then calls for TIH shippers to carry the full brunt of "most or all" of the PTC investment.[3] At page 22 of his Verified Statement, he concludes that the TIH shippers should not only fund "most or all" of the PTC investment costs but that they also should do so in advance of actual expenditures by UP.

Dr. Schwartz's conclusion is at variance with his observation at page 5 that, prior to passage of the RSIA, freight railroads were already planning deployments of PTC, thus indicating broader benefits. Dr. Schwartz also recognized that the RSIA requires PTC to be installed on tracks moving passenger trains and/or PIH materials. Subsequently, he further dilutes his conclusions that TIH shippers should bear a large share of PTC costs, which would approach 100% of PTC costs, by stating "…. the prospective PTC investment is largely caused by the RSIA's requirement governing lines that carry passengers <u>or</u> TIH traffic, <u>prompted by a desire to avoid collisions</u> that involve <u>either type of traffic</u>."[4]

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[3] See Schwartz Verified Statement, at 7 and 10.
[4] Schwartz Verified Statement, at 5 (emphasis supplied).

In summary, Dr. Schwartz initially advocated an unsupported assumption which he treated as a finding, then modified that finding when he encountered a fact. Dr. Schwartz, generally unimpeded by mundane facts, in his Verified Statement often writes in the future tense, advocating what the STB should allow on behalf of UP and when the STB should allow UP to begin collecting for an investment program which is still undefined, much less approved or actually made. Dr. Schwartz concludes by advocating "Implementing higher rates for TIH shipments in advance of PTC investments…".[5] He seems unencumbered by the need or inclination to deal with the fundamental facts of the case: the reasonableness of the rates to Eloy and Sahuarita.

III. UP's Claims About the "Market" for TIH Rail Shipments

In its Opening Evidence, UP announces that it has applied more than an average { } percent rate increase to chlorine in less than five years.[6] Moreover, the average rate increases cited by UP are vastly exceeded by { } applied to many individual shippers.[7] UP's notion of the market seems to be defined by UP rate increase announcements followed by shipper compliance. UP, in attempting to make the case for rate increases, is in fact making the case for rate regulation to rein in the exorbitant rate increases imposed by UP on captive TIH shippers for the transport of an essential commodity.

Moreover, a review of the material provided by UP in discovery in this case found no documents suggesting a correlation between PTC and the rate increases.

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5 Schwartz Verified Statement at 22.
6 UP Opening Evidence at 13.
7 O'Connor Opening Verified Statement at 3-5.

Correspondence between UP and the shippers seldom if ever discussed the reason for price increases and we found no mention of PTC as a reason for a rate increase. On the contrary, UP marketing personnel demonstrated little knowledge of PTC and its implementation. As example, attached to this Reply Verified Statement as Reply Exhibit __ (TOC-1) is a series of e-mails relating to an October, 2008 {

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In sharp contrast to UP's representations in its Opening Evidence, these {

} This exhibit belies UP's representations that its rate setting policies in this timeframe specifically had in mind recouping PTC implementation costs.

IV. Any Costs UP Incurs for Positive Train Control ("PTC") Costs Will be Captured by URCS and the STB's Rate Setting Process

UP has not incurred many PTC costs yet, if any, and the actual costs UP eventually incurs to install PTC on the issue movements routes or anywhere on UP's system remain to be determined. To the extent UP actually incurs PTC costs – and any other costs during the five year prescription period of this case – such costs will be reflected in URCS. UP admits this, as it must.[8] The Board's rate prescription procedures, by which rates are based upon the R/VC ratio, not absolute rate levels, and which also entails indexing the most recently available URCS data to the present, resolve any "regulatory lag" issues. More specifically, as UP incurs costs associated with installing PTC, those costs will be captured in the unadjusted URCS, which means that the revenue associated with the R/VC calculation will have to increase in order to maintain the prescribed R/VC ratio, and the rate paid by USM will increase. Consequently, no "other relevant factor" adjustment is needed in order to capture PTC costs due to regulatory lag.[9]

The Board recently adopted this method for determining the maximum rate from the prescribed R/VC ratio in Oklahoma Gas & Electric Co. v. Union Pac. R.R. Co.[10] However, it announced that the method would apply for all rate cases.[11] Very soon after, the Board affirmed its approach of establishing maximum reasonable rates based on R/VC ratios in Western Fuels Association, Inc. v. BNSF Ry. Co.[12]. The Board explained that "expressing the rate prescription as R/VC ratios rather than as predetermined rates

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[8] UP Opening Evidence at 61-62.

[9] In prior testimony in another proceeding, STB Ex Parte 677 (Sub-No 1), I demonstrated that the URCS makes very complete provision for capturing the costs as reported in the Annual Report R-1 each Class I railroad is required to file with the Board. The particular area I examined involved the costs associated with Casualties, Insurance and loss and damage claims. See STB Ex Parte No. 677 (Sub-No. 1), *Common Carrier Obligation of Railroads- Transportation of Hazardous Materials*, Report Prepared by Tom O'Connor and submitted to the STB on behalf of The Chlorine Institute, July 15, 2008. The same URCS data capture and processing dynamics would apply to PTC costs when such costs are incurred.

[10] STB Docket No. 42111, Oklahoma Gas & Electric Co. v. Union Pac. R.R. Co. (served July 24 2009) ("OG&E").

[11] *Id.* at 10 ("[a]s the maximum lawful rate in any rate case is now described as an R/VC ratio, whatever approach we adopt here would need to apply in all rate cases.").

[12] STB Docket No. 42088 (Sub-No. 1), Western Fuels Association, Inc. v. BNSF Ry. Co., (served July 27, 2009).

provides a flexible rate prescription methodology that allows the actual rates charged for the issue traffic to yield the same contribution prescribed by the Board as costs change."[13] The Board further stated that "there is a need for flexibility in rate prescriptions so that they can be self-adjusting as operating expenses change, while continuing to provide a reasonable constraint on the pricing of the railroad."[14]

If in fact UP incurs PTC costs in 2009, those costs will be captured in the URCS data no later than 2011. And just as important, 2009 PTC costs will be anticipated in the indexed URCS data and reflected in the R/VC ratios associated with the maximum reasonable rates in this proceeding almost immediately. In fact, the Board's quarterly indexing procedures are based on a market basket of price (not cost) indexes that increase at a faster pace than URCS unit costs because the Board's procedures do not include a productivity factor. So long as there is positive productivity in the rail industry, the indexing procedures (based on prices) will impose a *higher* rate of increase than a subsequent true-up based on actual URCS costs when the latter becomes available.

At page 62 of its Opening Evidence, UP refers to STB Ex Parte No. 681, Class I Railroad Accounting and Financial Reporting, a proceeding instituted by the Board with an Advance Notice of Proposed Rulemaking, on January 5, 2009 ("ANPR"). In the ANPR, the Board sought "public comment on whether and how is should improve its informational tools to better identify and capture the costs of hazardous-material transportation movements."[15] Stated more simply, the Board sought public input on

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[13] *Id.* at 7.
[14] *Id.* at 8.
[15] ANPR at 2.

whether it should "add a hazmat adjustment to URCS."[16] In its Opening Evidence, UP urges the Board to adopt such an adjustment "consistent with UP's proposals in this proceeding."[17] However, comments filed by interested parties in Ex Parte No. 681 strongly opposed the piecemeal adjustment of URCS. Similar sentiments were subsequently expressed in a public hearing held by the Board on April 30, 2009 in STB Ex Parte No. 431 (Sub-No. 3), Review of the Surface Transportation Board's General Costing System. My testimony[18] and the testimony of others in that proceeding stressed that URCS is a complex costing system and it is inadvisable to engage in isolated or ad hoc "tinkering" such as UP appears to contemplate with PTC adjustments to URCS. URCS is a multi-phased system which operates in an integrated fashion. Extraneous and isolated adjustments are much more likely to degrade the system's performance than to improve it. The Board's Notice in Ex Parte No. 431 (Sub- No. 3) concurs with this conclusion, as the Board discusses the need for a "comprehensive" review of the URCS costing system. Thus, to the extent UP's proposals in this proceeding are intended to be, or are by operation, an end run around the Board's more comprehensive review of URCS, that is another reason for rejecting them in this proceeding.

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[16] *Id.*
[17] UP Opening Evidence, at 62.
[18] See STB Ex Parte No. 431 (Sub-No. 3), Review of the Surface Transportation Board's General Costing System, Verified Statement of Tom O'Connor, April 23, 2009 submitted on behalf of The American Chemistry Council, the Edison Electric Institute, the National Grain and Feed Association, and The National Industrial Transportation League ("Interested Associations").

V. The Deficiencies In UP's Cost Estimates for PTC

Much of the underlying basis for UP's claims concerning PTC cost is still a work in progress. To test UP's cost estimate assertions in its Opening Evidence, I reviewed the UP electronic workpaper { } submitted with UP's Opening Evidence. That workpaper provides a more detailed summary of the PTC costs which UP summarized on page 38, table 5. My review of the workpaper indicates that the detail corresponds to the summary in which UP presented an estimated total PTC cost of approximately $1.4 Billion. However, the workpaper falls far short of providing supporting evidence for the reasonableness or completeness of UP's PTC cost estimates. { } All of these "missing aspects" are germane to the reliability and accuracy of the estimate. The costs should be reasonably constructed, reliably associated with the entities benefiting and properly associated with the relevant time frame.

These workpapers reveal other pertinent information. In many instances the workpapers reflect assumptions that indicate a range of uncertainty in the costs. In one area, Wayside Signal Costs, the workpapers identified { } Wayside Signal Costs accounts for about { } of the $1.4 billion UP has estimated.

In summary, UP has provided insufficient detail to support its claim of a $1.4 billion investment. It may be that the investment is installed over a period of five years.

Depreciation would be calculated based on the timing of the investment. Estimating return on the investment is not possible since the benefits and indeed the benefiting entities are still undefined. At a minimum, the benefiting entities would include all shippers and other entities using the network which PTC impacts. That goes well beyond chlorine shippers; well beyond TIH shippers; well beyond other chemical shippers; and well beyond the UP. After all the benefits are tallied and all of the costs are validated, it becomes feasible to estimate the scope of the benefits and a benefit to cost ratio. We are a long way from computing a return on PTC investment. UP has presented only a fragment of the picture. Moreover, a return on investment presumes that an investment has been made. That also remains unclear based on the material UP has presented.

VI. UP's Flawed Proposals for Allocating PTC Costs Would Improperly Expand the Scope of the Three Benchmark Analysis

Even if the development of a "PTC annualized-revenue requirement" as proposed by UP was appropriate, its development falls outside the scope of the Three Benchmark case for a number of reasons. Detailed analysis, similar to road property investment ("RPI") analysis in SSAC or SAC, would have to be completed. It would be hugely burdensome for complainants to have to anticipate, analyze and develop evidence concerning potential future capital investment in Three Benchmark cases. UP's proposed application of the STB discounted cash flow ("DCF") model (modified by UP for use in this proceeding) is mainly used in SAC cases. UP's DCF analysis includes a component used in SAC cases "that provides for return of and return on investment" in the DCF model. UP's opening evidence states that the PTC annualized-revenue requirement represents the amount of revenue UP would have to earn each year to provide for a return of and return on UP's investment in PTC."[19] This goes beyond recovering the cost of the investment, and UP is attempting to implement some form of "cost recovery for future costs." UP should not be entitled to additional return on investment on already highly profitable TIH traffic.

UP certainly should not be allowed to also layer an additional return component on top of the return on investment already included in URCS. To accept this proposed modification would in effect probably eliminate the existing Three Benchmark methodology and merge it into the SSAC methodology, while moving SSAC closer and closer to the complexity of SAC. This would negate the Board's work in promulgating the *Simplified Standards* and run counter to the Congressional directive that led the Board to develop them.

In addition, under UP's revenue need alternative, adding the "PTC annualized-revenue requirement" to $REV_{short/overage}$ portion of the TIH-specific RSAM benchmark, is inappropriate and creates an "apples to oranges" comparison. This adjustment is similar to but considerably worse than the regulatory lag – cost and revenue adjustments the Board was concerned about in *Simplified Standards*.[20] In essence UP is attempting to apply a 2009 presumptive revenue need adjustment factor to revenue need benchmarks for 2004-2007 data. This would produce inaccurate results and would not reflect UP's revenue need requirement (e.g RSAM, R/VC>180 benchmarks) for the last two years.

To illustrate the changes in revenue needs, I have estimated UP's 2008 $REVshort_{/overage}$ portion of UP's 2008 RSAM benchmark. To calculate the benchmark I used UP's 2007 marginal tax rate in place of the 2008 marginal tax rate and the AAR's

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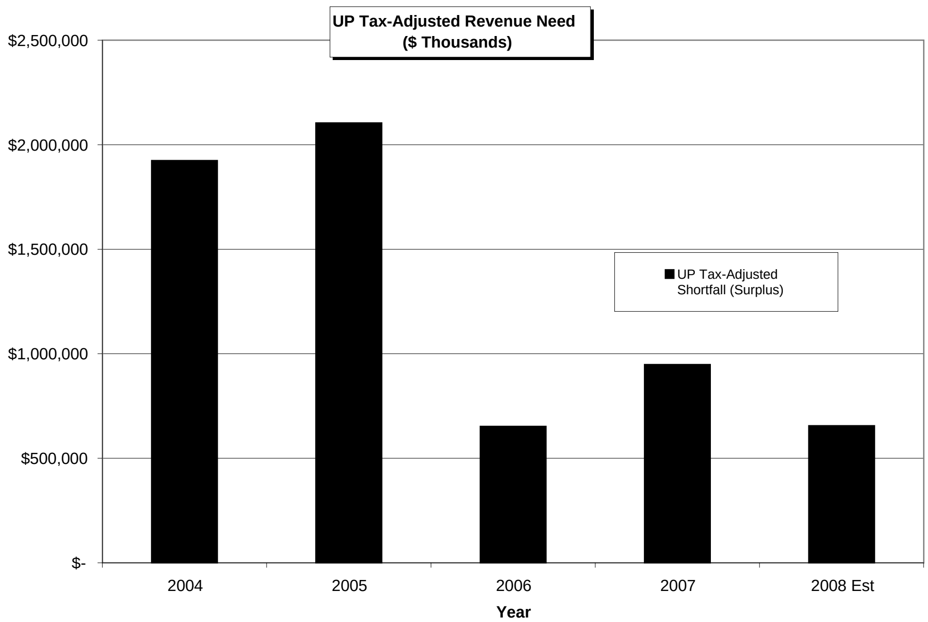
[19] UP Opening Evidence at 56.
[20] *Simplified Standards* at 84-85.

estimate of the industry cost of capital for 2008. The graphs below show how UP's revenue need has diminished recently and further underlines the point of how applying UP's proposed 2009 PTC annualized-revenue requirement to 2004 to 2007 benchmarks produces inaccurate results.



UP has acknowledged that TIH revenues have increased over the last two years which in turn would reduce the revenue requirements of TIH chemicals. UP's Opening Evidence states that UP's average revenue per ton mile of chlorine increased from { } mills in 2004 to { } mills in 2008, almost an { } increase.

VII. Conclusions

In this Reply Verified Statement, I reach the following conclusions concerning deficiencies in UP's Opening Evidence in this proceeding:

- The Verified Statement of Dr. Schwartz is unproductively theoretical; uninformed by the relevant data available in the case record, and consequently largely irrelevant to the fundamental issues of the case;

- Contrary to UP's description of the "market" for TIH transportation, UP is operating in a regional monopoly with regard to US Magnesium and similarly situated shippers;

- If and when UP incurs costs to install PTC, such will be captured by URCS, and the STB's rate prescription process; and

- UP's cost estimates PTC are fatally deficient and unsupported.

- UP's proposed PTC cost allocation proposals would improperly expand the Three Benchmark methodology far beyond the Board's expectations, and are flawed in any event

Reply Exhibit No. (TOC___1)

Verification

I declare under penalty of perjury that the foregoing is true and correct. I further certify that I am qualified and authorized to sponsor and file this testimony.

Executed on September 22, 2009

Tom O'Connor

HIGHLY CONFIDENTIAL
EXHIBIT ___ (TOC-1) REDACTED

CERTIFICATE OF SERVICE

I do hereby certify that on this 22nd day of September, 2009, I have served a copy of the foregoing Complainant's Opening Evidence by e-mail and regular mail upon counsel for Defendant at the following address:

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