

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

Docket Ex Parte No. 711

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March 1, 2013
Part of Public Record

**PETITION FOR RULEMAKING TO ADOPT REVISED COMPETITIVE SWITCHING
RULES**

**Comments of the American Chemistry Council
March 1, 2013**

The American Chemistry Council (ACC) is pleased to comment on the need for competitive rail switching. This important docket began when the National Industrial Transportation League (the League) filed a petition with the Surface Transportation Board (the Board) on July 7, 2011. In a statement filed on July 27, 2011, ACC stated its “strong support” for the League’s petition as providing “a reasonable, workable and predictable standard for granting competitive reciprocal switching. The need for such competitive access was amply demonstrated by the comments and testimony provided to the Board in Ex Parte No. 705, Competition in the Rail Industry.” ACC maintains its strong support for competitive switching as proposed in the League’s petition.

Since the opening of Ex Parte No. 705 (EP 705) more than two years ago, shippers have presented compelling information to STB documenting the challenges facing rail-dependent shippers and the need for policy reforms to promote greater rail to rail competition. The Staggers Rail Act, at 49 U.S. Code §11102(c)(1), provides that “The Board may require rail carriers to enter into reciprocal switching agreements, where it finds such agreements to be practicable and in the public interest, or where such agreements are necessary to provide competitive rail service.” But as the League has demonstrated in the present docket Ex Parte No. 711 (EP 711), the current switching rules do not allow reciprocal switching to be used in a way that promotes competition. In its filing today, the League thoroughly addresses each of the Board’s questions and provides an extraordinary level of economic analysis to support its proposal for competitive switching. Based on this extensive and compelling data, the Board should expeditiously issue a Notice of Proposed Rulemaking to implement competitive switching.

ACC’s Membership Has a Significant Interest in This Proceeding

ACC represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives

better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing. The business of chemistry is a \$760 billion enterprise and a key element of the nation's economy. It is the largest exporting sector in the U.S., accounting for 12 percent of U.S. exports. Chemistry companies are among the largest investors in research and development. Chemical products constitute the second-largest commodity sector in terms of annual rail tonnage and railroad freight revenue.

ACC Strongly Supports the League's Proposal for Competitive Switching

Comments submitted by ACC and many other stakeholders in EP 705 left no doubt that the Board should adopt pro-competitive arrangements that are within the scope of the agency's statutory authority. ACC was one of the 27 trade associations (the Interested Parties) that filed three sets of written comments in EP 705 during 2011 (Joint Comments on April 12, Joint Reply Comments on May 27 and Supplemental comments on July 25). The Interested Parties represent a wide range of diverse rail-dependent U.S. industries. In addition, ACC along several of its individual member companies participated in the EP 705 hearing (June 22-23, 2011).

Although competitive, or "reciprocal," switching was not the only remedy that ACC and the other Interested Parties advocated in EP 705, it was a prominent topic. Our position was clearly set forth on page 9 of our Supplemental Comments:

"The Board should adopt a policy of requiring reciprocal switching under 49 U.S.C. 11102(c) based upon a general finding, from the record in Ex Parte No. 705 and the new proceeding, that requiring such access is in the public interest and is necessary to provide competitive rail service. This is necessary in order to remedy a general lack of rail to rail competition following the mergers which led to the current structure of Class I railroads in this country, including a failure of merging carriers to engage in vigorous competition as they promised in those merger proceedings. That general finding could be revisited at a later date if the Board finds that competitive balance has been restored. The pricing of reciprocal switching should not include "opportunity costs" or elements consisting of monopoly rents or premiums, such as efficient component pricing. In the new proceeding, the Board should seek comment on standards for determining a reasonable switch rate."

On page 3 of another set of Supplemental Comments in the same docket, which ACC filed as part of a group of 40 organizations on July 25, 2011, we stated:

"[T]he undersigned rail-dependent shippers believe that rules that protect an individual railroad's customer base from competition from another railroad simply are not consistent with the post-1980 law and the regulatory regime based on that law. As Commissioners

observed several times during the hearing, the current rules of the Board on reciprocal switching and access to terminal areas simply are not working. The ‘competitive abuse’ standard has resulted in no access rulings favorable to rail customers in over twenty years. Testimony to the Board was that no one has even tried to use the current rules in over fifteen years.”

ACC certainly concurred in the following statement in those Supplemental Comments:

“Most of us recommend changes to the current reciprocal switching and terminal access rules that are the same [as] or similar to the recommendations contained in the recent National Industrial Transportation League petition for rulemaking to the Board docketed as Ex Parte No. 711.”

Thus, ACC’s position has been consistent: competitive rail switching, as embodied in the League’s initiative, will make a significant contribution to a more balanced rail system.

Recent Studies Highlight Growing Challenges for Rail-Dependent Chemical Shippers

ACC recently released two new studies on freight rates and other rail issues confronted by chemical shippers. While these studies were initiated prior to the Board’s announcement of EP 711, they provide valuable context on how a key segment of shippers is harmed by the lack of competition in the freight rail industry. The full reports are included as Attachments A and B to these comments, and key findings are summarized below.

In its *Analysis of Freight Rail Rates for Chemical Shippers* conducted in 2012 on behalf of ACC, Escalation Consultants examined the Board’s 2010 Public Use Waybill Sample to calculate railroad revenues and variable costs for chemical traffic (Standard Transportation Commodity Code 28). For each group of related chemical commodities, Escalation Consultants calculated the average rate for all movements with less than a 180% Revenue to Variable Cost ratio (RVC) and the average rate for all movements with an RVC above 180%. The difference between these averages was then multiplied by the number of carloads for each commodity group with rates above a 180% RVC to calculate the total premium charged to chemical shippers. To provide a baseline for comparison, chemical traffic from the 2005 Public Use Waybill Sample was also analyzed using the same methodology.

The Escalation Consultants report shows:

- In 2010, three-quarters of all chemical traffic that originated or terminated in the U.S. had rates greater than 180% RVC. As a result, the premium charged to chemical shippers for rates above 180% RVC totaled more than \$3.9 billion.

- Many chemical carloads moved at RVC ratios far above 180%, with more than half of all chemical traffic having rates above a 240% RVC and more than one-third above a 300% RVC. Nearly \$2.9 billion of the \$3.9 billion rate premium is driven by rates that exceed 300% RVC.
- The chemical commodity most impacted is plastic resin. In 2010, plastic shippers paid more than a \$1 billion premium on rail rates with more than a 180% RVC.
- Shipments that originated in Canada were more likely to move under rates that had less than a 180% RVC than those that originated in the U.S. (40 percent in Canada vs. 23 percent in the U.S.), creating a competitive disadvantage for U.S. chemical producers.
- Between 2005 and 2010, chemical traffic moving under rates with more than a 180% RVC climbed from 60 percent to 75 percent. As a result, the premium charged to chemical shippers for rates above 180% RVC rose dramatically, from \$2.2 billion in 2005 to \$3.9 billion in 2010.

In 2012, Veris Consulting conducted a survey of chemical shippers and receivers, examining how freight rates and other rail transportation issues impact our industry's business decisions and performance. Key findings from the *ACC Rail Issues Survey Results Report* include:

- Most chemical shippers and receivers are captive to a single railroad. Nearly 73 percent of inbound rail transportation is served by a single railroad while 65 percent of all outbound transportation is served by a single railroad. Respondents reported that, on average, rail rates for captive production facilities are 30 percent higher.
- In the past five years, railroads have leveraged their market power in setting rates, charges, and service requirements. Three-quarters of companies reported that rail freight rates have increased faster than rates for other transportation modes. Three-fifths of companies reported substantial increases in other ancillary charges.
- Shippers face significant barriers to challenge uncompetitive rail rates. More than one-third of companies chose not to file a complaint with the Board due to the costs or other barriers. Companies identified numerous reasons why they have chosen not to file complaints, citing the potential cost and length of time to go through the rate case process, the possibility of "retaliation" or "retribution" from the railroad, and the fact that railroads have "bundled" multiple shipping lanes under a single "all or nothing" contract and refused to quote a tariff rate for an individual lane.
- Lack of competition negatively impacts domestic investments and other business decisions for U.S. chemical producers. In the survey, 69 percent of companies reported that captivity and associated rail rates and service problems hurt their ability to meet customer demand and 27 percent reported that these challenges have hindered their company from making domestic investments.

Together, these two studies demonstrate how railroads have increasingly leveraged their unique market power, while harming U.S. manufacturers and the economy as a whole. This further supports the League's proposal for competitive switching to promote competitive rates for a greater number of freight shipments.

Competitive Switching Would Provide Significant Benefits to Shippers and the U.S. Economy

The proposed competitive switching framework would provide benefits to a broad range of rail shippers, including shippers of coal, grain and chemical products. According to the League's analysis, the proposed framework could impact a total of 1.2 million carloads and provide potential benefits of approximately \$1.3 billion on an annual basis. Chemical shipments have the largest potential savings of any commodity group, with approximately 400,000 carloads gaining access to competitive switching and a total potential premium reduction of about \$500 million. Rate reductions for chemical products and other commodities achieved through competitive switching will drive economic growth and be reinvested in the economy.

The Proposed Competitive Rail Switching Framework Will Not Unduly Harm Freight Railroads

The League's analysis shows that its proposed competitive switching framework could potentially reduce railroad revenue for affected shipments by \$1.3 billion. This represents a loss of 2.4 percent of total railroad revenue. Such a limited reduction in revenue is not likely to prevent railroads from recovering fixed costs or hinder rail infrastructure investment.

The League's primary analysis assumes that rates for shipments subject to competitive switching will fall to the average level for competitive traffic plus the access price. However, this likely represents an upper-bound estimate of the reduction that may be achieved, given that the ability to obtain competitive switching does not guarantee that the second railroad will choose to compete with the incumbent railroad for a particular movement. The League then estimates the expected impacts based on the duopoly that would result from switching, which would be less than what would be created in a truly competitive market. ACC believes that these estimates are reasonable and the best that can be developed with the available data.

In addition, the revenue loss would be at least somewhat offset by traffic increases that would result from lower rates. ACC has not quantified the expected traffic increases or the resulting revenue offset. However, as discussed above, ACC estimates that the potential rate reductions for chemical shippers would generate nearly one billion dollars in economic output. We would expect the majority, if not all, of the expansion of the chemical industry to occur in areas that utilize rail service to transport products. Railroads will likely realize a significant increase in traffic from this expanded chemical industry output.

In short, competitive switching must not be viewed as a zero-sum game in which there are winners and losers, but rather as expanding the economic pie so that everyone can enjoy a bigger piece.

Rates for Other Captive Shippers Are Unlikely to be Significantly Impacted

The Board is also seeking comments on how the League's proposal would potentially impact captive shippers that would not be covered by the proposed competitive switching framework. The Board notes that under the Stand-Alone Cost (SAC) rate analysis, a carrier may be able to justify higher rates to remaining captive shippers if other formerly captive shippers obtain rate reductions. While shippers involved in SAC challenges would potentially face higher rates, the impact would likely be limited given the small number of cases that actually reach the stage of applying a SAC analysis.

It would be unfounded to assume that remaining captive shippers would be broadly harmed. Evidence presented in EP 705 strongly suggests that the current regulatory environment does not effectively constrain rates on captive shippers to what is necessary to recover fixed costs. In addition, ACC's analysis of freight rates further demonstrates that rates for many chemical shippers are well above existing measures of railroad revenue needs, including the Revenue Shortfall Allocation Method. If competitive switching were adopted and railroads subsequently raise rates on remaining captive shippers, it could not be assumed that such increases were based on any specific relationship to fixed costs.

As discussed above, ACC's recent survey demonstrates that chemical shippers face significant barriers to challenge rail rates. This suggests that the agency's existing procedures do not provide a viable remedy for many shippers. By preventing potentially meritorious cases from being filed, such barriers significantly reduce the Board's usefulness as the Nation's exclusive forum for determining the reasonableness of rail freight rates.

Concluding Comments

ACC thanks the Board for the opportunity to comment in this important docket. The U.S. chemical industry urges the Board to complete its assessment of the League's petition and to move promptly to the publication of a proposed competitive rail switching rule that is consistent with the framework addressed in this docket.

The Board is to be commended for undertaking the current economic assessment in EP 711. However, ACC recognizes that a number of additional pro-competitive reforms are called for, as advocated and explained by shipper interests in great detail during EP 705.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Tom E. Schick". The signature is written in a cursive, slightly slanted style.

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Attachment A

Analysis of Freight Rail Rates for Chemical Shippers

Prepared for
American Chemistry Council

By
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December 2012



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Analysis of Freight Rail Rates for Chemical Shippers

Introduction

Chemical shippers rely on the nation's freight railroads to move many of their products. These chemicals ultimately help produce a wide range of goods, including building materials, pharmaceuticals, safe drinking water, automobile components, and electronics.

Chemical shippers have experienced significant increases in rail rates in recent years. Data from Class I railroads show that revenue per carload for chemicals increased over 25% in 4 years, and that chemical shippers pay higher rates than other key commodity groups (Exhibit 1).

Escalation Consultants was retained by the American Chemistry Council to assess revenue-to-variable-cost ratios (RVCs)¹ for chemical traffic, and to quantify the economic cost to the chemical industry from rail rates that exceed the Surface Transportation Board (STB) jurisdictional threshold. The RVC is an important indicator for examining freight rail rates because traffic with rates greater than 180% RVC are subject to potential STB review for being unreasonably high.

Methodology

Escalation Consultants examined the STB's 2010 Public Use Waybill Sample, a sample of carload waybills for all U.S. rail traffic submitted by rail carriers, to calculate railroad revenues and variable costs for chemical traffic. For each group of related chemical commodities, Escalation Consultants calculated the average rate for all movements with less than a 180% RVC and the average rate for all movements with

¹ RVC = Rate ÷ Railroad's variable cost for movement (example: \$2,000 rate ÷ \$1,000 variable cost = 200% RVC).

an RVC above 180%. The difference between these averages was then multiplied by the number of carloads for each commodity group with rates above a 180% RVC to calculate the total premium charged to chemical shippers. Escalation Consultants then broke out the carloads and the premium charged to chemical shippers by RVC ranges (180-240%, 241-300%, and above 300%). Exhibit 11 further details the methodology used in this analysis. To provide a baseline for comparison, chemical data from the 2005 waybill was also analyzed.

Summary of Findings

- In 2010, three-quarters of all chemical traffic that originated or terminated in the U.S. moved under rates which had RVC's greater than 180%.
- As a result, the premium charged to chemical shippers for rates which had an RVC above 180% totaled more than \$3.9 billion.
- Many chemical carloads moved at RVC ratios far above 180%, with more than half of all chemical traffic having rates above a 240% RVC and more than one-third above a 300% RVC.
- The chemical commodity most impacted is plastic resin. In 2010, plastic shippers alone paid more than a \$1 billion premium on rail rates with more than a 180% RVC.
- Shipments that originated in Canada were more likely to move under rates that had less than a 180% RVC than those that originated in the U.S. (40 percent in Canada vs. 23 percent in the U.S.), creating a competitive disadvantage for U.S. chemical producers.
- Between 2005 and 2010, chemical traffic moving under rates with more than a 180% RVC climbed from 60 percent to 75 percent.

- As a result, the premium charged to chemical shippers for rates above a 180% RVC rose dramatically, from \$2.2 billion in 2005 to \$3.9 billion in 2010 (an increase of more than 78 percent).

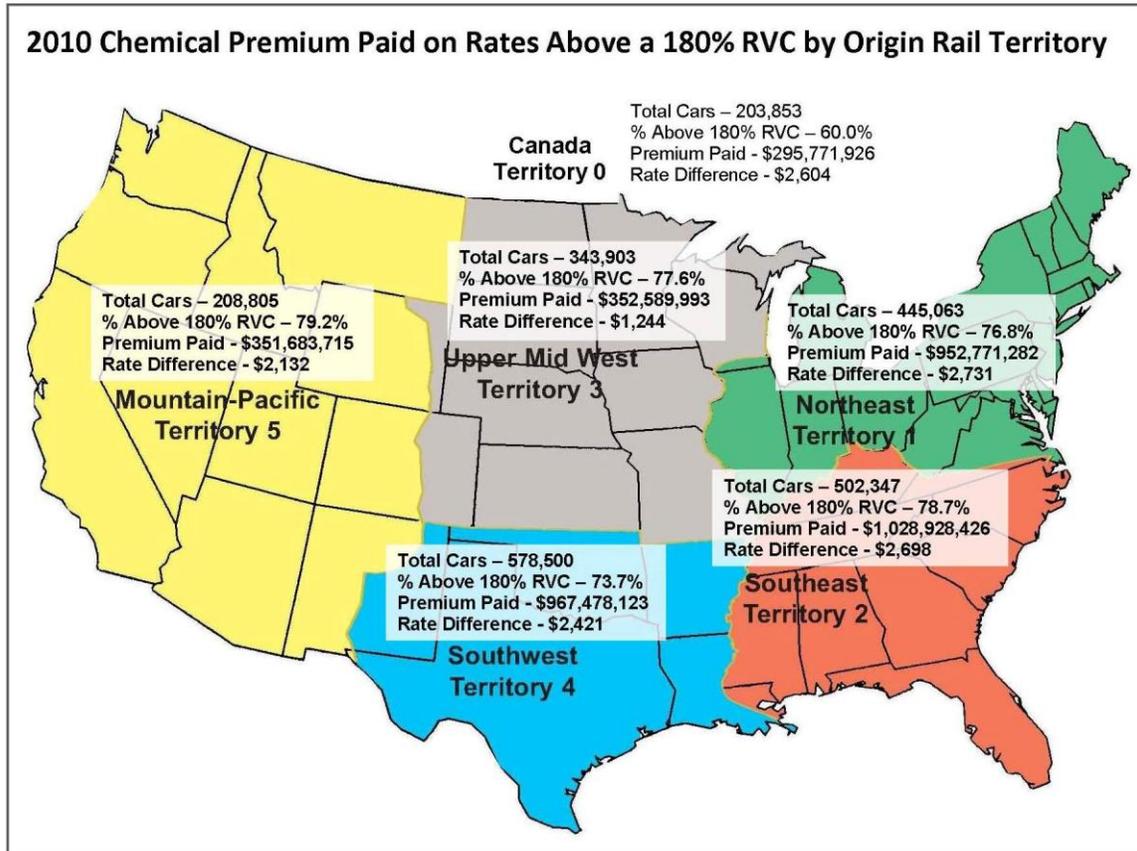
Results from Analysis

The premium for Chemical movements with rates above a 180% RVC in this study are broken out for each of the five rail territories in the U.S. as well as for rail Territory 0 (zero) which includes Canada and Mexico. Almost all chemical movements originating in Territory 0 are Canadian movements and as a result Territory 0 origins are referred to as Canadian origins in this Study. The map on page 4 shows the area for each rail territory along with the 2010 results for each territory. The map shows the:

- Total chemical carloads;
- The percentage of cars with rates above a 180% RVC;
- The premium paid on moves with rates above a 180% RVC; and,
- The difference in rates for moves with RVC's above and below 180%.

Greater detail on the breakdown of all chemical traffic is included in Exhibit 2 of the Appendix.

**The 2010 Total Premium Paid on Chemical Movements
with Rates Above a 180% RVC = \$3,949,129,465**



The Study points out some important information about the breakdown of chemical traffic. Some pertinent points for 2010 chemical traffic are as follows:

- The reason that the chemical rate premium is so large is because 75.3% of all chemical traffic in North American that originates or terminates in the U.S. moves under rates above a 180% RVC. (see Exhibit 2 of the Appendix)
- Only 60% of Canadian origins terminating in the U.S. have rates above a 180% RVC and when Canadian origins are excluded 76.8% of U.S. chemical carloads have rates above a 180% RVC. (see Exhibit 2 of the Appendix)

- Rates with more than a 180% RVC are on average 85.1% higher than rates with less than a 180% RVC (Exhibit 2 of the Appendix), but six chemicals have rates that are more than 130% greater. (see Exhibit 5 of the Appendix)
- Chlorine (Standard Transportation Commodity Code (STCC) 28128) has the biggest difference between rates above and below a 180% RVC. Chlorine rates above a 180% RVC are 262% higher than rates below the 180% RVC level. The top ten chemicals with the largest difference between rates above and below the 180% RVC level are included in Exhibit 5 of the Appendix. The breakdown for Chlorine is in Exhibit 8 of the Appendix.
- The commodity most significantly impacted by rates above the 180% RVC level is Plastics (STCC 28211). Plastic shippers pay more than a billion dollars to railroads above what their rates would be if they had rates below the 180% RVC level for their rail movements (refer to Exhibit 3 of the Appendix). The premium for rates above a 180% RVC for Plastics is very high because 358,564 carloads move under these rates and there is close to a \$3,000 difference (the sixth largest rate difference for any chemical) between rates above and below the 180% RVC level. The premium for rates above a 180% RVC for plastics is in Exhibit 7 of the Appendix.
- The geographic regions of the country where chemicals are most impacted by railroads rates above a 180% RVC are as follows: (see Exhibit 2 of the Appendix)

| <u>Origin Territory</u> | <u>Origin Region</u> | <u>Rate Premium</u> | <u>Percent of Cars with RVCs Above 180%</u> |
|-------------------------|----------------------|---------------------|---|
| 2 | Southeast U.S. | \$1,028,928,426 | 78.7% |
| 4 | Southwest U.S. | \$967,478,123 | 73.7% |
| 1 | Northeast U.S. | \$952,771,282 | 76.8% |

- Inter-switching rail regulations in Canada² give Canadian chemical plants a big advantage over U.S. plants as 40% of Canadian traffic has rates with RVC's less than 180% versus only 23.2% of U.S. Chemical moves (see Exhibit 2 of the Appendix). Canada, therefore, has almost twice the percentage of low RVC Chemical movements as the U.S. and this gives Canadian chemical rail traffic a transportation advantage over U.S. traffic.
- Canada is a major chemical production area for U.S. industries as Canada originates almost the same number of chemical carloads as the Mountain Pacific Region of the U.S. (Mt. Pacific Region 208,805 chemical carloads versus Canada 203,853 carloads) (see Exhibit 2 of the Appendix)
- Thirty-five percent (35%) is the highest percent of carloads with rates below an RVC of 180% for any commodity. The commodity with the highest percent of low RVC traffic is Miscellaneous Fertilizer Compounds (STCC 28714). Four other commodities have more than 30% of their carloads with low RVC's. Exhibit 6 of the Appendix contains the top ten chemicals with the largest percent of rail carloads moving under rates with less than 180% RVC's.

Breakdown by RVC Range

The premium for rates above a 180% RVC in this study is broken out by RVC range. This breakdown shows that more than half of all chemical traffic has more than a 240% RVC while more than a third of chemical traffic has an RVC greater than 300%. Most of the premium for rates above a 180% RVC is generated from movements with RVC's greater than 300%³ as they represent 72.9% of the \$3.9 billion

² Canada has inter-switching which allows an industry to have access to all of the railroads that serve a station if the industry is within 18 miles of the station. The Canadian Transportation Agency can prescribe an even greater distance for an interchange with another railroad to allow a plant to have rail competition.

³ An RVC greater than 300% means that the rates for the movement are more than 200% greater than the railroads variable cost of the movement. This is some of the most profitable traffic moved by rail.

premium for rates above a 180% RVC. Table 1 below shows the breakdown of Chemical carloads with RVC's above 180% and the premium paid for these movements by RVC range.

Table 1

2010 RVC Breakdown of Chemical Carloads and Costs with RVC's Greater than 180%

| RVC Range | Carloads | Carload % Breakdown | Premium Paid for Moves with RVC's Above 180% | Premium % Breakdown |
|--------------|------------------|---------------------|--|---------------------|
| <180 | 564,459 | 24.7% | | |
| 180-240 | 523,953 | 23.0% | \$402,945,412 | 10.2% |
| 241-299 | 381,722 | 16.7% | \$665,473,520 | 16.9% |
| >300 | 812,337 | 35.6% | \$2,880,710,533 | 72.9% |
| Total | 2,282,471 | 100.0% | \$3,949,129,465 | 100.0% |

Changes Between 2005 and 2010

The study also looked at movements in 2005 to determine changes that occurred to chemical movements over the five years between 2005 and 2010. This five year comparison shows that the fastest growing segment of railroads chemical traffic is in high profit movements with more than 300% RVC's. The results of this comparison are summarized in Table 2 which shows that between 2005 and 2010:

- Chemical carloads with less than a 180% RVC decreased by 29.9% while carloads with RVC's above 300% increased by 63.6%; and,
- The premium paid for traffic with rates that had more than a 300% RVC increased by 88.7%.

Table 2
**Change in Premium Paid for Chemical Rates
 Between 2005 and 2010 by RVC Range**

| RVC Range | Carloads | | | | Premium Paid for Rates with RVC's Above 180% | | | |
|--------------|------------------|------------------|----------------|--------------|--|------------------------|------------------------|--------------|
| | 2005 | 2010 | Change | % Chg. | 2005 | 2010 | Change | % Chg. |
| <180 | 805,730 | 564,459 | -241,271 | -29.9% | | | | |
| 180-240 | 439,305 | 523,953 | 84,648 | 19.3% | \$277,338,616 | \$402,945,412 | \$125,606,796 | 45.3% |
| 241-299 | 287,170 | 381,722 | 94,552 | 32.9% | \$408,998,427 | \$665,473,520 | \$256,475,093 | 62.7% |
| >300 | 496,548 | 812,337 | 315,789 | 63.6% | \$1,526,824,867 | \$2,880,710,533 | \$1,353,885,666 | 88.7% |
| Total | 2,028,753 | 2,282,471 | 253,718 | 12.5% | \$2,213,161,910 | \$3,949,129,465 | \$1,735,967,555 | 78.4% |

These results demonstrate that the railroads rate making practice for chemicals changed dramatically between 2005 and 2010 as railroads increased rates to levels that substantially reduced the amount of traffic that moved under low RVC rates. Table 2 shows that while chemical traffic increased by 253,718 carloads between 2005 and 2010, low RVC carloads decreased by 241,271. The reason for the decrease in low RVC cars was that high RVC carloads increased by 494,989.

The commodities with the largest increase in the premium paid for rates above a 180% RVC between 2005 and 2010 are in Exhibit 10.

Exhibits to the Analysis of Freight Rail Rates for Chemical Shippers

Exhibit 2 – Premium for All Chemical Rail Rates with RVC's Above 180% (Summary for STCC 28)

Exhibits 3 - 6 in the Appendix contain the top ten chemical commodities in 2010 broken out as follows:

Exhibit 3 – Chemicals Most Impacted from Rates with RVC's Above 180%

Exhibit 4 – Chemicals with the Largest Percent of Carloads with Rates Above 180% RVC's

Exhibit 5 – Chemicals with Largest Difference Between Rates Above and Below a 180% RVC

Exhibit 6 – Chemicals with Largest Percent of Carloads with RVC's Below 180%

Exhibits 7 and 8 provide the breakdown for specific chemicals in 2010.

Exhibit 7 – Breakdown for Premium Paid on Plastic Movements (STCC 28211)

Exhibit 8 –Breakdown for Premium Paid on Chlorine Movements (STCC 28128)

Exhibit 9 and 10 show changes that occurred between 2005 and 2010

Exhibit 9 – Change in Chemical Carloads with Low and High RVC's By Territory Between 2005 and
2010

Exhibit 10 – Chemicals With the Largest Increase in Rate Premium between 2005 and 2010

Exhibit 11 provides details on the methodology for calculating the premium for Chemical rail rates with
RVC's above 180%

Appendix

Exhibit 11

Methodology for Calculating the Premium Paid to Railroads by Chemical Shippers on Movements with RVC's Above 180%

The 2010 Public Use Waybill Sample (Sample) was used to calculate the premium Chemical shippers pay to railroads for rates that have RVC's above 180%. The Sample represents 100% of all rail shipments that originate or terminate in the U.S. The Sample is a collection of railroad waybill records submitted by railroads to the Surface Transportation Board (STB); it is roughly a 3% sample of all rail movements which is then expanded to represent 100% of all rail traffic. The 2010 Sample consists of 580,928 waybills. Chemical or Allied Product shipments, excluding intermodal movements, numbered 48,973 Waybills. Escalation Consultants analyzed the 48,973 chemical records and 655 records were eliminated from the file because they were found to contain errors not detected or deemed significant by the STB¹. The 48,318 Waybills (48,973 – 655) when expanded to represent all chemical rail traffic total to 2,282,471 chemical carloads.

Movement characteristics for each chemical record were evaluated to determine the number of interchanges, car type, weight/car, rail territory of origin, destination and all relevant movement parameters so that railroad variable costs could be computed. All movements were run through the Optimized Rail Bid Evaluation (ORBE) batch processing program that can analyze the cost for thousands of movements utilizing the STB costing program, the Uniform Rail Costing System (URCS). The ORBE calculated the following for each chemical movement:

- Railroad variable cost;
- The Revenue to Variable Cost Ratio (RVC) ($RVC = \text{Revenue} \div \text{Variable Cost}$); and,
- Profit (revenue per movement less variable cost).

The ORBE then summarized and segregated all chemical movements by type of chemical and the rail territory of origin.

The Staggers Rail Act of 1980 set a legislative demarcation for captive rail rates as those rates with an RVC of 180% or greater. The 180% RVC level is referred to as the Jurisdictional Threshold, signifying the STB has no authority over tariff rates of less than 180%, therefore, movements are defined as captive if they have an RVC of 180% or greater and are considered competitive if they have an RVC of less than 180%.

The premium Chemical shippers pay to railroads is determined by calculating the average difference in the rates per car between moves with RVC's above and below 180% for each commodity in each territory and then multiplying this rate difference by the number of cars with RVC's above 180% for that commodity and territory. The sum of the rate premium amounts for all territories represents the total premium for a chemical.

The most detailed chemical commodities in the Sample are five-digit Standard Transportation Commodity Codes (five-digit STCC's). The Sample contains sixty (60) different five-digit chemical codes which represent all chemicals shipped by rail. The overall amount for chemicals (STCC 28) is the sum of the sixty (60) five-digit chemical codes.

In calculating the rate for moves with less than a 180% RVC some chemicals did not contain any low RVC movements in a rail territory and in other cases the makeup of low RVC traffic was substantially different than the makeup of high RVC traffic. In these instances low RVC rail rates were computed based on the jurisdictional threshold of 180%. In these situations the rates for low RVC traffic was

determined by multiplying the average high RVC cost per car for a commodity in a territory by 180%. This is a conservative assumption on low RVC rates as it assumes that the low RVC rates for all movements in a territory are at the absolute highest possible low RVC rate level which is 180% greater than the railroads' average variable cost of high RVC movements. The cost of high RVC movements represents the difference between low RVC and high RVC rates for a specific commodity in a territory so by establishing the low RVC rate at the highest level possible the Study minimizes the premium paid for high RVC movement when the low RVC rate is a calculated amount.

Due to the calculations reference in the preceding paragraph, the premium paid on moves with RVC's greater than 180% at the 2-digit STCC 28 level for all chemicals cannot be calculated by multiplying the rate difference for low RVC and high RVC carloads by high RVC carloads, as you can at the 5-digit STCC level. The overall premium paid on moves with RVC's greater than 180% for all chemicals at the STCC 28 level is the total of all sixty chemical commodities included on the Waybill and analyzed in this Study.

Railroads are allowed to mask contract revenue either up or down in the Sample which means that rates may be over or understated to the extent that revenue masking occurs in the Sample. To the extent that revenue masking occurs in the Sample it would apply to the rates for both high RVC and low RVC movements. The premium paid to railroads on moves with RVC's greater than 180% is calculated as the difference between average high RVC and low RVC rates and both types of movements would be impacted by revenue masking so the premium paid to railroads for chemical movements should not be materially impacted by any masking of revenue in the Sample.²

In calculating the difference in the premium paid to railroads on movements with RVC's above 180% between 2005 and 2010 the same process was followed in both years in order to make meaningful

comparisons of changes occurring in chemical traffic. The only difference in calculations were as follows:

1. 2005 URCS Cost data was used to calculate the cost for movements on the 2005 Waybill; and,
2. Miscellaneous revenue was added to the rate revenue in 2005 as some railroads reported fuel surcharge revenue differently in the 2005 Waybill.

Waybill data in the Sample have been used by shippers, consultants, railroads and various federal and state governmental agencies in a wide array of cases before the ICC (now the STB), state regulatory bodies and the courts. The premium for rates above 180% RVC calculations in the Study utilized the Public Use Waybill Sample which contains the most detailed data the STB makes available to the public on rail movements.

¹ The movements which were eliminated fell into the following categories:

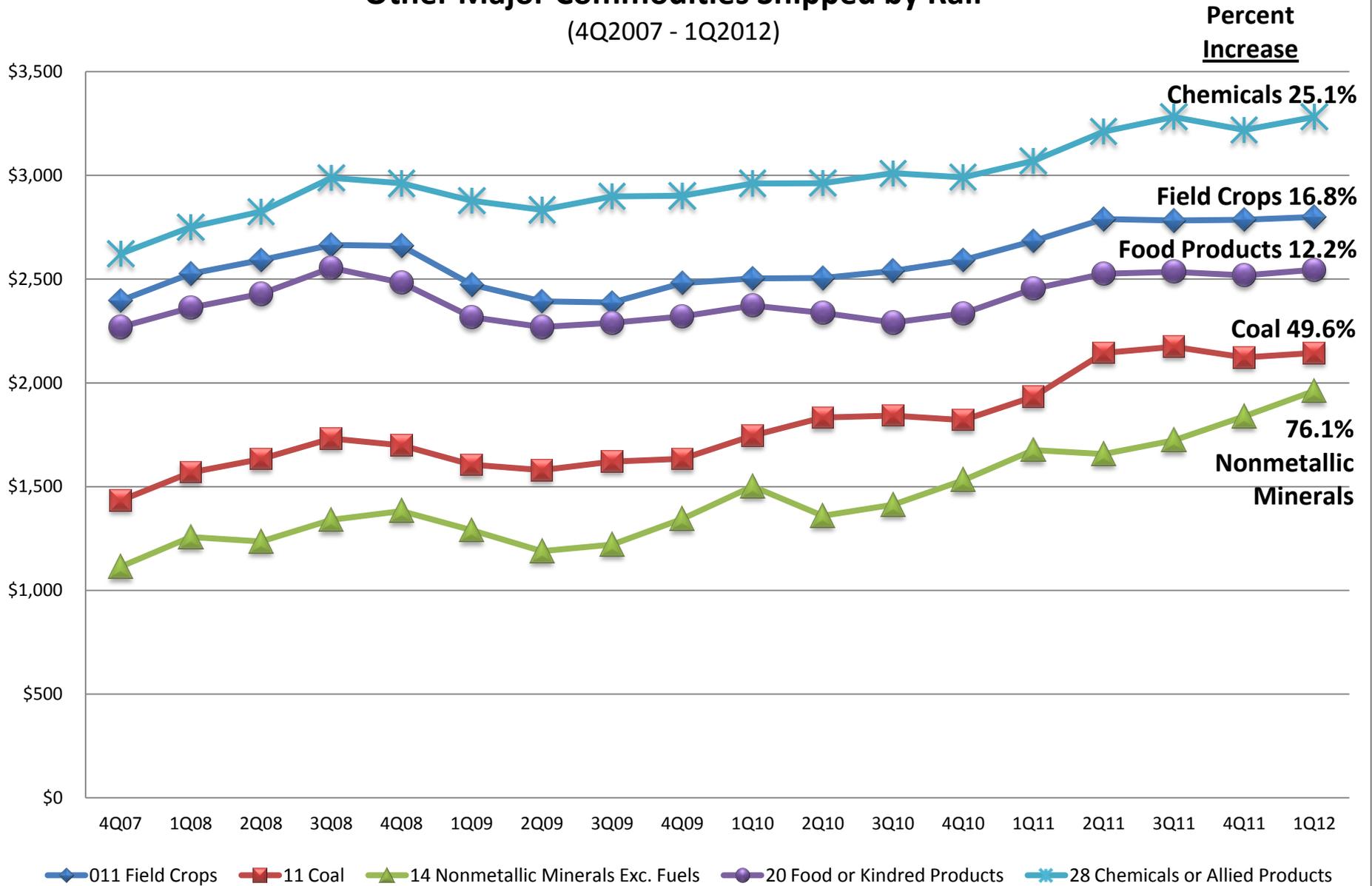
- Laden weights of 130 tons or more per car,
- Laden weights of zero tons per car,
- Rates of zero dollars per car,
- RVC levels of less than 50%,
- Rates of \$30,000 or above per car.

Gross track weight limitations are 286,000 lbs or 143 tons. The tare weight or empty weight of typical railcars range between 26 and 55 tons, adding 130 tons of laden to an empty car will exceed the 143 ton limit. Shipping zero tons, or having a rate of \$zero or \$30,000 and above per car is deemed an input error; people do not ship commodities without weight, railroads do not tend to ship commodities for free and shippers do not tend to ship commodities at rates at or in excess of \$30,000 per car. An RVC level of less than 50% is indicative of an input error in the STB's Waybill regarding the rate or the distance per movement.

² To test the accuracy of results based on different algorithms that could be used to mask rail revenue and different cost assumptions Escalation Consultants ran several iterations of the Waybill. The premium paid to railroads on moves with RVC's above 180%.

Comparison of the Average Revenue Per Car for Chemicals vs Other Major Commodities Shipped by Rail

(4Q2007 - 1Q2012)



Source: Average revenue per car is based on BNSF, CSXT, NS and UP's Quarterly Freight Commodity Statistic filings to the STB as contained in Rail Rate Checker.

Year 2010
Premium Paid for Rail Rates with RVC's Above 180% for STCC 28
 (Chemicals or Allied Products)

| | Avg. Below 180% RVC | | Avg. Above 180% RVC | | Rate Difference | Carloads | | | Rate Premium |
|---------------------------------|---------------------|----------------|---------------------|------------------|--------------------|------------------|---------------------|---------------------|------------------------|
| | Rate | Carloads | Rate | Carloads | | Total | % Below 180% RVC | % Above 180% RVC | |
| Territory 0 Canada | \$3,615.70 | 81,532 | \$6,220.40 | 122,321 | \$2,604.70 | 203,853 | 40.0% | 60.0% | \$295,677,926 |
| Territory 1 Northeast | \$2,547.00 | 103,085 | \$5,277.80 | 341,978 | \$2,730.80 | 445,063 | 23.2% | 76.8% | \$952,771,282 |
| Territory 2 Southeast | \$2,349.00 | 106,925 | \$5,047.40 | 395,422 | \$2,698.40 | 502,347 | 21.3% | 78.7% | \$1,028,928,426 |
| Territory 3 Upper Mid West | \$2,557.20 | 77,158 | \$3,801.40 | 266,745 | \$1,244.20 | 343,903 | 22.4% | 77.6% | \$352,589,993 |
| Territory 4 Southwest | \$2,363.00 | 152,224 | \$4,784.30 | 426,276 | \$2,421.30 | 578,500 | 26.3% | 73.7% | \$967,478,123 |
| Territory 5 Mountain-Pacific | \$3,455.30 | 43,535 | \$5,587.10 | 165,270 | \$2,131.80 | 208,805 | 20.8% | 79.2% | \$351,683,715 |
| Average | \$2,685.70 | | \$4,970.00 | | \$2,284.30 | | | | |
| Total | | 564,459 | | 1,718,012 | | 2,282,471 | 24.7% | 75.3% | \$3,949,129,465 |
| Total US Only | | 482,927 | | 1,595,691 | | 2,078,618 | 23.2% | 76.8% | \$3,653,451,539 |
| % Difference | | | | | 85.1% | | | | |

Chemicals Most Impacted by Rates with RVC's Above 180%
(Top Ten Chemicals)

| STCC | Commodity | Rate Premium on Moves with RVC's Above 180% ⁽¹⁾ |
|-------|---|--|
| 28211 | Plastic Materials/Synthetic Resins | \$1,090,618,986.30 |
| 28184 | Alcohols | \$485,958,255.50 |
| 28123 | Sodium Compounds, exc. Sodium Alkalies | \$250,900,747.30 |
| 28128 | Chlorine | \$187,695,595.80 |
| 28198 | Anhydrous Ammonia | \$148,843,864.00 |
| 28125 | Potassium Compounds, exc. Potassium Alkalies | \$145,251,142.20 |
| 28181 | Misc. Acyclic Organic Chemical, exc. Organic Dyes | \$145,246,465.70 |
| 28186 | Organic Acids or Salts, exc. Acid Dyes | \$126,115,297.50 |
| 28193 | Sulphuric Acid | \$107,408,353.90 |
| 28122 | Sodium Alkalies | \$106,276,883.80 |
| | TOP TEN TOTAL | \$2,794,315,592.00 |
| | TOTAL ALL CHEMICAL COMMODITIES | \$3,949,129,464.80 |

⁽¹⁾ The rate premium represents the difference between the amount chemicals shippers pay to railroads on high RVC movements above the rates on movements with RVC's less and 180%.

Chemicals with Largest Percent of Carloads with RVC's Above 180%

| STCC | Commodity | Carloads Below 180% | Carloads Above 180% | Percent of Cars with RVC's Above 180% |
|-------|--|------------------------|------------------------|--|
| 28996 | Blacks | 280 | 16,920 | 98.4% |
| 28198 | Anhydrous Ammonia | 848 | 39,480 | 97.9% |
| 28128 | Chlorine | 2,360 | 38,320 | 94.2% |
| 28182 | Misc. Acyclic Organic Chemical, exc. Organic Dyes | 1,720 | 21,196 | 92.5% |
| 28181 | Misc. Acyclic Organic Chemical, exc. Organic Dyes | 10,583 | 69,093 | 86.7% |
| 28133 | Carbon Dioxide | 2,320 | 13,840 | 85.6% |
| 28713 | Ammoniating Fertilizer Solution or Nitrogen Fertilizer Solution | 9,664 | 52,131 | 84.4% |
| 28151 | Cyclic Intermediates Benzene/Toluene/Naphthalene/Anthracene/Pyridine | 6,680 | 35,980 | 84.3% |
| 28186 | Organic Acids or Salts, exc. Acid Dyes | 7,708 | 41,372 | 84.3% |
| 28998 | Misc. Chemical Compounds, exc. Sealants | 2,400 | 11,440 | 82.7% |

Note: Based on STCCs that have more than 10,000 carloads with RVC's above 180%.

Chemicals with Largest Rate Difference Between High and Low RVC Movements
(Top Ten Chemicals)

| STCC | Commodity | Avg. Below 180% RVC | Avg. Above 180% RVC | Rate Difference | Percent Rate Difference |
|-------|---|------------------------|------------------------|-----------------|----------------------------|
| 28128 | Chlorine | \$1,836.20 | \$6,646.80 | \$4,810.60 | 262.0% |
| 28182 | Misc. Acyclic Organic Chemical, exc. Organic Dyes | \$2,151.70 | \$6,789.40 | \$4,637.70 | 215.5% |
| 28996 | Blacks | \$1,789.20 | \$6,425.70 | \$4,636.50 | 259.1% |
| 28198 | Anhydrous Ammonia | \$2,891.70 | \$6,608.10 | \$3,716.40 | 128.5% |
| 28714 | Misc. Fertilizer Compounds | \$2,355.60 | \$5,840.70 | \$3,485.10 | 147.9% |
| 28211 | Plastic Materials/Synthetic Resins | \$2,121.80 | \$5,087.80 | \$2,966.00 | 139.8% |
| 28185 | Glycols or Glycerines | \$3,904.40 | \$6,783.70 | \$2,879.30 | 73.7% |
| 28199 | Industrial Inorganic Chemicals, exc. Mining/Milling or Preparing Natural Boron/Sodium | \$3,152.60 | \$5,806.30 | \$2,653.70 | 84.2% |
| 28151 | Cyclic Intermediates Benzene/Toluene/Naphthalene/Anthracene/Pyridine | \$3,139.30 | \$5,752.30 | \$2,613.00 | 83.2% |
| 28186 | Organic Acids or Salts, exc. Acid Dyes | \$2,845.60 | \$5,256.10 | \$2,410.50 | 84.7% |

Note: Based on STCCs that have more than 10,000 carloads with RVC's above 180%.

Chemicals with Largest Percent of Low RVC Rail Carloads
(Top Ten Chemicals)

| STCC | Commodity | Below 180% RVC | Above 180% RVC | Percent of Cars with RVC's Below 180% |
|-------|---|-------------------|-------------------|--|
| 28714 | Misc. Fertilizer Compounds | 11,120 | 20,608 | 35.0% |
| 28125 | Potassium Compounds, exc. Potassium Alkalies | 48,449 | 93,794 | 34.1% |
| 28185 | Glycols or Glycerines | 13,800 | 28,748 | 32.4% |
| 28712 | Super Phosphate | 30,107 | 64,911 | 31.7% |
| 28211 | Plastic Materials/Synthetic Resins | 158,904 | 358,564 | 30.7% |
| 28183 | Misc. Cyclic Chemical Products | 6,200 | 14,312 | 30.2% |
| 28184 | Alcohols | 125,181 | 329,950 | 27.5% |
| 28191 | Ammonia or Ammonium Compounds, exc. Anhydrous Ammonia | 7,480 | 19,792 | 27.4% |
| 28193 | Sulphuric Acid | 18,076 | 58,353 | 23.7% |
| 28194 | Industrial Inorganic Acids, exc. Nitric or Sulphuric | 8,240 | 29,508 | 21.8% |

Note: Based on STCCs that have more than 10,000 carloads with RVC's above 180%.

Premium Paid for Plastics (STCC 28211) Rail Rates with RVC's Above 180%
 (Plastic Materials or Synthetic Resins or Non-Vulcanizable Elastomers Exc. Fabricated Plastic Product)

| | Avg. Below 180% RVC | | | | Avg. Above 180% RVC | | | | Rate Difference | Carloads | | | Rate Premium |
|-----------------------------------|---------------------|---------------|----------------|-------|---------------------|---------------|----------------|-------|--------------------|----------------|---------------------|---------------------|------------------------|
| | Rate | RVC | Carloads | Miles | Rate | RVC | Carloads | Miles | | Total | % Below 180% RVC | % Above 180% RVC | |
| Territory 0 Canada | \$3,853.70 | 131.0% | 14,840 | 1,432 | \$7,445.40 | 265.0% | 10,600 | 1,519 | \$3,591.70 | 25,440 | 58.3% | 41.7% | \$38,071,634 |
| Territory 1 Northeast | \$1,451.30 | 111.0% | 20,980 | 494 | \$5,369.00 | 481.0% | 65,744 | 487 | \$3,917.70 | 86,724 | 24.2% | 75.8% | \$257,567,766 |
| Territory 2 Southeast | \$2,422.60 | 136.0% | 27,324 | 785 | \$6,087.20 | 404.0% | 108,872 | 672 | \$3,664.60 | 136,196 | 20.1% | 79.9% | \$398,972,242 |
| Territory 3 Upper Mid West | \$2,435.00 | 127.0% | 3,320 | 1,030 | \$6,006.90 | 401.0% | 9,720 | 883 | \$3,571.90 | 13,040 | 25.5% | 74.5% | \$34,718,880 |
| Territory 4 Southwest | \$1,896.20 | 125.0% | 92,080 | 765 | \$4,062.60 | 323.0% | 160,852 | 635 | \$2,166.40 | 252,932 | 36.4% | 63.6% | \$348,476,118 |
| Territory 5 * Mountain-Pacific | \$1,797.80 | 180.0% | 360 | 1,754 | \$6,413.20 | 642.0% | 2,776 | 703 | \$4,615.40 | 3,136 | 11.5% | 88.5% | \$12,812,346 |
| Average | \$2,121.80 | 126.0% | | | \$5,087.80 | 379.0% | | | \$2,966.00 | | | | |
| Total | | | 158,904 | | | | 358,564 | | | 517,468 | 30.7% | 69.3% | \$1,090,618,986 |
| Total US Only | | | 144,064 | | | | 347,964 | | | 492,028 | 29.3% | 70.7% | \$1,052,547,352 |

* Below 180% RVC rates were established at 180% of the cost per car of rates with RVC's above 180% to compensate for mileage differences in rates for high and low RVC movements.

Premium Paid for Chlorine (STCC 28128) Rail Rates with RVC's Above 180%

| | Avg. Below 180% RVC | | | | Avg. Above 180% RVC | | | | Difference | Carloads | | | Rate Premium |
|-----------------------------------|---------------------|---------------|--------------|-------|---------------------|---------------|---------------|-------|-------------------|---------------|-------------|------------------|----------------------|
| | Rate | RVC | Carloads | Miles | Rate | RVC | Carloads | Miles | | Rate | Total | % Below 180% RVC | |
| Territory 0 * Canada | \$3,789.80 | 180.0% | 320 | 2,280 | \$7,069.20 | 336.0% | 3,400 | 1,114 | \$3,279.40 | 3,720 | 8.6% | 91.4% | \$11,150,170 |
| Territory 1 Northeast | \$2,056.60 | 101.0% | 200 | 910 | \$9,576.20 | 853.0% | 9,440 | 587 | \$7,519.60 | 9,640 | 2.1% | 97.9% | \$70,985,416 |
| Territory 2 Southeast | \$1,070.60 | 160.0% | 960 | 210 | \$5,197.50 | 695.0% | 16,360 | 314 | \$4,126.90 | 17,320 | 5.5% | 94.5% | \$67,516,577 |
| Territory 3 Upper Mid West | \$1,895.00 | 125.0% | 40 | 810 | \$4,854.80 | 467.0% | 2,080 | 608 | \$2,959.80 | 2,120 | 1.9% | 98.1% | \$6,156,360 |
| Territory 4 Southwest | \$1,941.10 | 153.0% | 720 | 505 | \$5,822.00 | 580.0% | 5,040 | 557 | \$3,880.90 | 5,760 | 12.5% | 87.5% | \$19,559,760 |
| Territory 5 * Mountain-Pacific | \$1,736.30 | 180.0% | 120 | 1,610 | \$7,900.00 | 819.0% | 2,000 | 653 | \$6,163.70 | 2,120 | 5.7% | 94.3% | \$12,327,313 |
| Average | \$1,836.20 | 156.0% | | | \$6,646.80 | 681.0% | | | \$4,810.60 | | | | |
| Total | | | 2,360 | | | | 38,320 | | | 40,680 | 5.8% | 94.2% | \$187,695,596 |
| Total US Only | | | 2,040 | | | | 34,920 | | | 36,960 | 5.5% | 94.5% | \$176,545,426 |

* Below 180% RVC rates were established at 180% of the cost per car of rates with RVC's above 180% to compensate for mileage differences in rates for high and low RVC movements.

Change in Rail Chemical Carloads Between 2005 and 2010

| Origin | Total Carloads | | | Change in Carloads with RVC Below 180% | Change in Carloads with RVC Above 180% |
|---------------------------------|------------------|------------------|----------------|--|--|
| | 2005 | 2010 | Difference | | |
| Territory 0 Canada | 223,646 | 203,853 | -19,793 | -35,404 | 15,611 |
| Territory 1 Northeast | 298,113 | 445,063 | 146,950 | 34,572 | 112,378 |
| Territory 2 Southeast | 541,160 | 502,347 | -38,813 | -98,262 | 59,449 |
| Territory 3 Upper Mid West | 161,994 | 343,903 | 181,909 | -5,977 | 187,886 |
| Territory 4 Southwest | 583,686 | 578,500 | -5,186 | -89,845 | 84,659 |
| Territory 5 Mountain-Pacific | 220,154 | 208,805 | -11,349 | -46,355 | 35,006 |
| Total | 2,028,753 | 2,282,471 | 253,718 | -241,271 | 494,989 |

**Chemicals with the Largest Increase in the Premium Paid on Moves with
RVC's Above 180% Between 2005 and 2010**

| STCC | Commodity Description | 2005 Cost of Non-Competitive Rates | 2010 Cost of Non-Competitive Rates | Increase |
|-------|---|--|--|------------------|
| 28184 | Alcohols | \$69,096,391.60 | \$485,958,255.50 | \$416,861,863.90 |
| 28211 | Plastic Materials/Synthetic Resins | \$798,498,864.60 | \$1,090,618,986.30 | \$292,120,121.70 |
| 28128 | Chlorine | \$44,441,988.20 | \$187,695,595.80 | \$143,253,607.60 |
| 28198 | Anhydrous Ammonia | \$40,199,464.60 | \$148,843,864.00 | \$108,644,399.40 |
| 28125 | Potassium Compounds, exc. Potassium Alkalies | \$58,743,816.40 | \$145,251,142.20 | \$86,507,325.80 |
| 28193 | Sulphuric Acid | \$33,444,301.90 | \$107,408,353.90 | \$73,964,052.00 |
| 28181 | Misc. Acyclic Organic Chemical, exc. Organic Dyes | \$74,570,935.20 | \$145,246,465.70 | \$70,675,530.50 |
| 28713 | Ammoniating Fertilizer Solution | \$9,124,765.40 | \$67,006,864.20 | \$57,882,098.80 |
| 28122 | Sodium Alkalies | \$49,970,273.20 | \$106,276,883.80 | \$56,306,610.60 |
| 28182 | Misc. Acyclic Organic Chemical, exc. Organic Dyes | \$47,658,719.50 | \$95,476,021.10 | \$47,817,301.60 |

Note: Codes 28181 and 28182 have the same commodity description.

Attachment B



ACC Rail Issues Survey

Results Report

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Executive Summary

The American Chemistry Council (ACC) commissioned Veris Consulting, Inc. (Veris), an independent third party, to conduct a survey of ACC member companies and other chemical shippers and receivers. The survey was designed to assess the extent to which companies rely on rail service, their access to competitive service and the rail issues they confront. Veris conducted the survey during June and July 2012.

Eighty-two companies responded to the survey, seventy-six of which indicated that they either shipped chemicals by rail or received raw materials by rail in 2011 and thus, completed the survey. Their aggregated answers, along with their comments, are provided in this report. Key survey findings are reported here in the Executive Summary.

Responding Companies Represent a Large Number of Facilities that Utilize Rail Service

Together, the 76 companies that completed the survey operate 677 chemical production facilities in the U.S. About three-quarters of these facilities rely on rail. Out of these rail-served facilities, 92% receive raw materials by rail and 71% ship out chemical products by rail. In addition, the survey requested specific information related to shipments of Toxic Inhalation Hazard (TIH) products. Over one-third of companies shipped TIH products from their facilities and two-thirds received TIH products by rail.

A Majority of Chemical Facilities Have Limited Access to Competitive Service and as a Result Pay a Higher Premium for Rail Service

Chemical producers report, on average, that 73% of their facilities with inbound rail transportation are captive to a single railroad. Furthermore, nearly half of respondents report that all (100%) inbound rail transportation to their chemical production facilities is captive. Chemical producers also face captivity as they ship out chemical products. Respondents report, on average, that 65% of their facilities with outbound transportation are captive to a single railroad.

When companies compared their captive and non-captive facilities and considered comparable volumes, distances, and service, they estimate that on average rail rates for their captive production facilities are 30% higher.

Railroads Leverage Their Market Dominance in Terms of Rates, Surcharges, and Service

The survey measured the effects of railroad market dominance experienced by shippers. These effects include higher costs through rates and ancillary charges, inability to access competitive service and burdensome requirements on shipments of certain products. When companies were asked to indicate the service condition issues they've been confronted with over the past five years, the following top issues emerged:

- Rail freight rates increasing more than rates for other modes of transportation [74%]
- Substantial increases in other ancillary charges (storage, demurrage, etc.) [59%]
- Railroad fuel surcharges over and above the underlying freight rates [57%]
- Efforts to shift liability from the railroad to the shipper for incidents involving specific materials [43%]
- Rate levels that led your company to consider filing a complaint at the Surface Transportation Board [36%]
- One railroad effectively choosing not to compete with another for your business [26%]
- Refusal to quote rates over a "bottleneck" segment to reach another carrier for onward service when only the bottleneck part of an origin-to-destination route is captive [24%]

Companies provided additional information and examples of these effects. Illustrating rail rate increases above those for other modes, one company reported, "Annual rail rate increases are near 5% versus a trend of flat fixed rates with truck." Numerous

comments highlight significant changes in ancillary fees for TIH products, with one noting a “200% increase for in-yard switches” and another reporting that “demurrage charges increased 3,000% overnight.”

In addition to the respondents reporting railroads’ refusal to quote rates over a “bottleneck segment,” one company noted that it has not attempted to request such rates “since the railroads have made it clear for years they have no intention of doing so.” As another example of anti-competitive practices, one company reported that a railroad “refused to quote on a TIH chemical rate from Louisiana across the southeast, inasmuch as we had another route option. We thus lost competitive leverage.”

Companies that ship and/or receive TIH materials report particular rate and service issues on these products. The majority of these companies report their rates paid to ship TIH products had increased more rapidly than rates to ship other products. In fact, on average, they pay 221% more to ship TIH products. One company reported that it pays 2,400% more to ship TIH products.

Over half of respondents that ship or receive TIH materials report that they’ve had a Class I railroad impose (or attempt to impose) liability indemnification requirements. Companies have also had rail carriers impose (or attempt to impose) requirements for TIH train operations such as dedicated train and speed limits and they report that this is more common with the short line railroads. Multiple companies provided comments on liability requirements with one stating that a railroad “requested that we sign an agreement indemnifying [the railroad] for all liability in the event of an incident involving a TIH product, regardless of whether they were clearly at fault or not.”

Shippers Face Significant Barriers to Challenge Uncompetitive Rail Rates

Only 9% of respondents said they have filed a formal complaint with the Surface Transportation Board (STB) over the past five years. Thirty-four percent (34%) of companies have chosen not to file a STB complaint due to the costs or other barriers.

The survey results pointed to some of the reasons why they have chosen not to file an STB complaint, with one reporting “the volumes on these lanes do not justify the expense of filing a rate case,” and another citing “the potential cost and length of time to go through the rate case process.” Several companies noted the possibility of “retaliation” or “retribution” from the railroad. In addition, nearly a quarter of companies report that railroads have “bundled” shipping lanes under a single “all or nothing” contract and refused to quote a tariff rate for an individual lane. As noted in the comments, by signing the bundled contract a company cannot go to the STB.

Lack of Competition Negatively Impacts Domestic Investments and Other Business Decisions for U.S. Chemical Producers

Rail issues are significant to companies and their investment decisions. They have caused companies to source raw material from off-shore as well as to site new production facilities based on access to competitive rail service. Rail rates and service conditions have influenced some companies to make decisions including to forego US capacity expansion, to shut a line of production and even to close a production facility. One company reported that “expansion is being planned in other parts of the world due to rail freight rates.”

Companies were asked a series of questions regarding whether captivity and associated rail rates and service problems hurt the company’s ability to meet customer demand or their ability to make investment decisions.

- 69% of companies reported that captivity and associated rail rates and service problems hurt their ability to meet customer demand;
- 27% reported captivity and associated rail rates and service problems hindered their company from making domestic investments;
- 54% of TIH companies that reported rates and/or tariff requirements impacted production/investment decisions.

In their comments, companies explained how captivity and associated rail rates and service conditions impact on their business decisions. One respondent commented, “Since rail rates to and from our captive plants are higher than our

competitor's non-captive plants, our net cost is higher and we lose business as a result." Another noted that for a particular chemical, "we routinely source our customers in the south central and southeastern U.S. from our Canadian plants despite having a production site in the southeast."

TIH shippers and receivers provided additional comments. One TIH shipper reported that for shipments of a TIH chemical, "greater than 30% has ended as production has been switched to India v. the USA." Another company stated that its production facilities utilizing inbound shipments of TIH materials "are at a competitive disadvantage vs. our plants overseas."

Response Details

The American Chemistry Council (ACC) invited 169 companies to participate in the 2012 Rail Issues Survey. Eighty-two (82) companies (49%) responded to the survey by submitting either complete or partial responses.

Companies were asked to indicate whether or not they **shipped out** manufactured chemical products by rail in 2011 (Q1.1) and whether or not they **received raw material** by rail in 2011 (Q1.2). Five (5) companies indicated that they did not ship out manufactured chemical products by rail and that they did not receive raw material by rail in 2011. Thus, these 5 companies did not complete the remainder of the survey. One (1) other company responded to Q1.1 and Q1.2 indicating that they *did* ship out manufactured chemical products by rail in 2011 but did not receive raw material by rail. However, this company did not respond to any other survey items. Thus, in total, 76 full responses were submitted.

In Section 4 of the survey, participating companies were asked to indicate whether or not they **shipped out TIH chemicals** by rail in 2011 (Q4.1) and whether or not they **received TIH chemicals** by rail in 2011 (Q4.2).

Thirty-six percent (36%) of companies shipped out TIH chemicals by rail in 2011. Sixty-four percent (64%) did not. Sixty-eight percent (68%) of companies received TIH chemicals by rail in 2011. Thirty-two percent (32%) did not. Twenty (20) companies, 27% of the total, assert that they *both* shipped out TIH chemicals by rail *and* received TIH chemicals by rail in 2011. Fifty-six (56) companies, 77% of the total, assert that they *either* shipped out TIH chemicals by rail *or* received TIH chemicals by rail in 2011.

Seventeen (17) companies, 23% of the total, indicate that they neither shipped out TIH chemicals by rail *nor* did they receive TIH chemicals by rail in 2011. These 17 companies were excluded from the remainder of the survey (Section 4). Another 3 companies were also excluded from the remainder of the survey as they did not provide any responses to Section 4. In total, 20 companies were excluded from the aggregate calculations in Section 4. Fifty-six (56) companies responded to the items in Section 4.

1 Rail Issues

Q1.1 In 2011, did your company ship out manufactured chemical products by rail? (yes, no)

Item response: 82/82=100%

Seventy-six percent (76%) of companies shipped out manufactured chemical products by rail in 2011. Twenty-four percent (24%) did not.

Q1.2 In 2011, did your company receive raw material by rail? (yes, no)

Item response: 82/82=100%

Eighty-nine percent (89%) of companies received raw material by rail in 2011. Eleven percent (11%) did not.

Fifty-eight (58) companies, 71% of the total, assert that they *both* shipped out manufactured chemical products by rail *and* received raw material by rail in 2011.

Seventy-seven (77) companies, 94% of the total, assert that they *either* shipped out manufactured chemical products by rail *or* received raw material by rail in 2011.

While 5 companies, 6% of the total, indicate that they neither shipped out manufactured chemical products by rail *nor* did they receive raw material by rail in 2011. These 5 companies were excluded from the remainder of the survey.

2 Facility Information and Rail Captivity

Q2.1 In total, how many chemical production facilities did your company operate in the US? (Do not include distribution centers, warehouses, terminals, rail storage yards, transloading facilities, etc.)

Item response: 73/76=96%

Together, respondent companies operate 677 chemical production facilities in the US. While about a fifth of responding companies only operate 1 chemical production facility, the average company operates 9 chemical production facilities in the US.

Chemical Production Facilities Operated in the US

| | |
|----------------|-----|
| Sum | 677 |
| Average | 9 |
| Minimum | 1 |
| Median | 5 |
| Maximum | 62 |

Q2.2 Of those facilities, how many were rail-served?

Item response: 75/76=99%

Together, the respondent companies operate 519 rail-served chemical production facilities in the US. Seventy-seven percent (77%) of the chemical production facilities in the US reported in Q2.1 are rail-served. The average, company operates 7 rail-served chemical production facilities in the US. Sixty-three percent (63%) of companies indicate that all (100%) of the chemical production facilities that they operate in the US are rail-served. At a minimum, 25% of chemical production facilities are rail-served and typically, 88% of a company's chemical production facilities are rail-served.

| | # Rail-Served Chemical Production Facilities Operated in the US | % Rail-Served Chemical Production Facilities Operated in the US |
|----------------|---|---|
| Sum | 519 | n/a |
| Average | 7 | 88% |
| Minimum | 1 | 25% |
| Median | 4 | 100% |
| Maximum | 40 | 100% |

Q2.3 How many of your rail-served facilities received raw materials by rail?

Item response: 73/76=96%

Together, the companies responding to Q2.3 receive raw materials by rail at 478 chemical production facilities in the US. On average, each company received raw materials by rail at 7 facilities. Eighty-one percent (81%) of companies receive raw materials by rail at all (100%) of their rail-served chemical production facilities in the US. On average, companies receive raw materials by rail at 92% of those facilities.

Typically, 73% of inbound rail transportation is captive to a single railroad. Furthermore, 46% of companies indicate that all (100%) of inbound rail transportation to their chemical production facilities is captive. In total, responding companies operate 341 facilities with captive inbound rail transportation.

Typically, 46% of a company's facilities with inbound rail transportation receive TIH chemicals by rail. Almost a third (31%) of companies assert that all (100%) of their facilities with inbound rail transportation receive TIH chemicals by rail. In total, responding companies operate 165 facilities that receive TIH chemicals by rail.

| | # of Company's Facilities that Receive Raw Material by Rail | % of Company's Facilities that Receive Raw Material by Rail | # of Company's Facilities with Captive Inbound Rail Transportation | % of Company's Facilities with Captive Inbound Rail Transportation | # of Company's Facilities that Receive TIH Chemicals | % of Company's Facilities that Receive TIH Chemicals |
|----------------|---|---|--|--|--|--|
| Average | 7 | 92% | 5 | 73% | 2 | 46% |
| Minimum | 0 | 0% | 0 | 0% | 0 | 0% |
| Median | 3 | 100% | 2 | 85% | 1 | 33% |
| Maximum | 40 | 100% | 36 | 100% | 13 | 100% |

Q2.4 How many of your rail-served facilities shipped out chemical products by rail?

Item response: 74/76=97%

Together, companies shipped out chemical products by rail from 373 facilities in the US. Typically, each company shipped out chemical products from 71% of its rail-served facilities. Over half (53%) of companies shipped outbound chemical products by rail from all (100%) of their rail-served facilities.

The typical company faces outbound transportation that is captive to a single railroad at 65% of their facilities. Furthermore, 36% of companies indicate that all (100%) of outbound rail transportation from their chemical production facilities is captive. In total, responding companies operate 234 facilities with outbound rail transportation that is captive to a single railroad.

Typically, companies ship out TIH chemicals from 22% of their facilities that have outbound rail transportation. Fourteen percent (14%) of companies assert that all (100%) of their facilities with outbound rail transportation ship out TIH chemicals by rail. In total, responding companies operate 60 facilities that ship out TIH chemicals by rail.

| | # of Company's Facilities that Ship Out Chemical Products by Rail | % of Company's Facilities that Ship Out Chemical Products by Rail | # of Company's Facilities with Captive Outbound Rail Transportation | % of Company's Facilities with Captive Outbound Rail Transportation | # of Company's Facilities that Ship Out TIH Chemicals | % of Company's Facilities that Ship Out TIH Chemicals |
|----------------|---|---|---|---|---|---|
| Average | 5 | 71% | 4 | 65% | 1 | 22% |
| Minimum | 0 | 0% | 0 | 0% | 0 | 0% |
| Median | 3 | 100% | 2 | 67% | 0 | 26% |
| Maximum | 39 | 100% | 32 | 100% | 7 | 100% |

Q2.5 What percentage of your company's outbound lanes were captive at the origin and/or destination site?

Item response: 73/76=96%

Due to discrepancies in the response data, the responses to survey item Q2.5 could not be aggregated and thus, are not reported herein.

Q2.6 In the past, rail customers have asserted that they pay a premium for rail service to and from their “captive” facilities when compared to facilities that are not captive. If your company had both captive and non-captive production facilities, for comparable volumes, distances, and service, how much higher were rail rates for your captive production facilities? Please provide your best estimate of the percentage difference. If there was no difference in the rail rates, please respond with “0%”. If your company did not have both captive and non-captive facilities, please mark in the “N/A” column.

How much more did you pay for rail service to/from your captive production facilities? (Percentage)

Item response: 74/76=97%

Forty-three percent (43%) of companies indicated that this survey item did not apply. Another 8% did not respond to this item. Thus, 49% of companies provided a numerical response to this survey item. Out of that group of companies, responses ranged from one company that pays 1% *less* for service to and from captive facilities, some companies that observe no difference in the rail rates, and other companies that pay as much as 150% more for rail service to and from their captive facilities. On average, companies pay a 30% premium for rail service to and from their captive facilities.

| Premium paid (percentage difference) for rail service to and from captive facilities (compared to non-captive) | |
|---|------|
| Average | 30% |
| Minimum | -1% |
| Median | 20% |
| Maximum | 150% |

3 Rail Rates and Service Conditions Issues

Q3.1 We would like to understand the rail rates and service conditions issues that your company has been confronted with over the past 5 years. If your company has experienced any of the issues listed in the following table, please let us know. Check all that apply.

Item response: ≥ 56 /76 ≥ 74%

The most common issue that companies have been confronted with over the past 5 years is freight rates increasing more than rates for other modes of transportation. Seventy-four percent (74%) of companies report facing this issue. Two other top issues are substantial increases in other ancillary charges (storage, demurrage, etc.)(59% of companies have been confronted with this issue) and railroad fuel surcharges over and above the underlying freight rates (57% have faced this issue). The following table presents the issues in descending order based the percent of companies that have been confronted with the issue.

| Issue | % of Companies confronted with issues over the past 5 years |
|---|--|
| Rail freight rates increasing more than rates for other modes of transportation | 74% |
| Substantial increases in other ancillary charges (storage, demurrage, etc.) | 59% |
| Railroad fuel surcharges over and above the underlying freight rates | 57% |
| Efforts to shift liability from the railroad to the shipper for incidents involving specific materials | 43% |

| | |
|--|-----|
| Rate levels that led your company to consider filing a complaint at the Surface Transportation Board | 36% |
| One railroad effectively choosing not to compete with another railroad for your business | 26% |
| Refusal to quote rates over a "bottleneck" segment to reach another carrier for onward service when only the bottleneck part of an origin-to-destination route is captive | 24% |
| "Bundling" of contract rates in a way that precludes challenging tariff rates for certain products or lanes | 22% |
| Refusal to quote rates or routes for certain products or lanes | 18% |
| Refusal to provide "reciprocal switching" that would allow traffic that originates or terminates within a terminal area to be moved by another line-haul carrier | 14% |
| Refusal to provide requested Rule 11 rates | 12% |
| Refusal to transport materials in intermodal rail service | 8% |

Companies were also asked to provide examples and/or additional information related to their responses in Q3.1, including the type of product(s) affected (e.g. "environmentally sensitive chemical"). Fifty-two percent (52%) of companies (22 companies) that provided a comment to Q3.1 mentioned TIH chemicals. Other chemicals or types of chemicals mentioned included soda ash, high pressure gases, liquid and dry products, gases, etc. Forty companies provided comments. They are listed in here in random order.

Q3.1 COMMENTS:

COMMENT 1

Rail rates increased between 40 and 100% in past 5 years. Truck rates have not changed from 3 years. A railroad changed TIH shipments to Rule 11 or tariff. No thru rates with the other railroad.

COMMENT 2

TIH products.

COMMENT 3

All rail rates our company pays are subject to fuel surcharges. A railroad recently initiated car storage fees for our specific product whereas before such charges only applied to the plastics. Another railroad refuses to quote rates to a potential rail-to-truck transload site if that would take market share away from a different railroad served site. Vice versa, that other railroad will sometimes do the same.

COMMENT 4

Rail is no longer competitively priced on some lanes when compared to truck. TIH car demurrage charges increased 3,000% overnight with little or no warning. No direct refusal in 2011-12 to reciprocal switch because we no longer approach the railroad due to its pricing.

COMMENT 5

We worked with one of the Class 1 railroads for four years since their captive rate put the location at a significant cost disadvantage. We developed a plan to transload at an offsite location. Prior to implementing the plan the rates were reduced more than 50%. We are also seeing significant changes in switching, demurrage, and line haul rates for TIH chemical cars.

COMMENT 6

200% increase in the in-yard switches and extremely high demurrage rates for TIH products.

COMMENT 7

TIH chemical.

COMMENT 8

Two TIH chemicals.

COMMENT 9

All company existing truck rates have escalated at a slower pace than existing rail rates. Annual rail rates increases are near 5% versus a trend of flat fixed rates with truck.

COMMENT 10

Rail rates have gone up on average 3-7%. This is higher than the 2% average transport rate increase. We experienced 300-500% increases on Class 1 railroad storage tracks that we had contracted for in 2 separate areas of the country. This occurred on contract renewals.

COMMENT 11

Rates for all products have gone up significantly. In particular one TIH chemical has been exorbitant. Three other chemicals have gone up significantly and sometimes based on the value of the product not the weight hauled.

COMMENT 12

Material was affected by the increase in the railcar cost and storage of the material in the railcar.

COMMENT 13

During the past year, three different Class 1 railroads have closed a company non-production facility. Have not attempted to request "bottleneck" rates since the railroads have made it clear for years they have no intention of doing so.

COMMENT 14

In general, we see rail rates increasing more than truck load rates.

COMMENT 15
TIH chemical.

COMMENT 16
Demurrage and private car storage charges have increased dramatically. Rates have increased in spite of economic conditions and in spite of competition from other modes of transportation.

COMMENT 17

COMMENT 19
As an example of the bundling of contract rates we have been offered contracts that are "all or nothing" meaning we either take the good with the bad in the bundle. By signing the bundled contract we cannot go to the STB.

COMMENT 20
Four of our facilities are serviced by short-line railroads. One of these short-line railroads has made it perfectly clear that they are moving TIH products only because of their common carrier obligation to do so. Despite the fact that moving TIH by rail continues to be one of, if not the safest means, for moving TIH materials, the railroad has stated that they want either liability limits and or elimination of that obligation and have made an attempt to counter that liability by significantly increasing their rates to us to exorbitant levels. We wrote to the STB to discuss 'Common Carrier Obligations' specifically as a result of the actions of this railroad. Our primary concerns are the embargos and extremely high tariffs placed on railcars carrying TIH chemicals that we have seen implemented by one particular short-line railroad. Allegedly due to increased federal scrutiny concerning the shipment of TIH/PIH products through highly populated areas as well as several bills introduced in Congress and proposed federal guidelines being discussed by the Transportation Security Administration, this railroad has abandoned their contract rate program and instead, has implemented a tariff rate program. In addition, special charges are being assessed, the combined impact of which is that the cost of bringing railcars into a facility has quadrupled within a short period in 2008. This action has made it close to cost prohibitive for our company to remain in business at that particular location. With only 17 or so chlorine chemical repackagers throughout the U.S., we have to ask ourselves who will service the thousands of water and wastewater treatment facilities throughout the U.S. if our company and or any other chlorine repackager is forced to go out of business, regardless of the reason? What happens when municipalities solicit bids for their chlorine requirements and no one responds simply because we can no longer afford to bring the product into our facilities? What happens when water and wastewater treatment plants call in to place orders and no one answers the phone? An equally critical issue is that in addition to the larger municipal water and wastewater treatment plants throughout the U.S., there are literally thousands of smaller 'pump' stations located in rural areas across the U.S. requiring one or two 150 pound cylinders at a time. How will these small pump stations be able to continue to provide water safe to drink to the residents they currently service? These small 'burgs' will have few if any other options for providing drinking water to their community and again, there are thousands of them located throughout the U.S.

COMMENT 21
TIH chemicals are particularly impacted by the items above.

Chemical truck rates currently are cheaper than rail at inbound captive sites. A railroad has priced on a "highly hazardous" level with an increase rate of 140%.

COMMENT 18
1-TIH chemical freight increased 264% over the past five years. 2. Fuel surcharge over-recovery versus fuel cost. 3. Rail carriers refuse to "unbundle" lanes in contract ("all or nothing" in contract or at tariff). 4. Liability shedding. 5. A railroad refused to quote rates on one of our plants in the southeast two occasions. 6. Another railroad amended its tariff on two occasions to prevent a bottleneck segment.

COMMENT 22
Demurrage charges have increased substantially.

COMMENT 23
TIH rates have been priced extremely high and some railroads have introduced language whereby liability resides with the shipper.

COMMENT 24
We received substantial increases in switching charges for TIH product.

COMMENT 25
One railroad refuses to quote on another railroad's delivery out of Canada. A different railroad refuses to haul cross-border on intermodal but will ship bulk.

COMMENT 26
See item 4.4a [the company responded "yes" to the question, " and in Q4.4a, the company indicated that they estimate that rates to ship TIH products compared to non-TIH products are 393% higher].

COMMENT 27
We do not pay the RR directly, but our vendors of TIH material tell us rates continue to go up significantly.

COMMENT 28
All TIH chemical issues with switch points for positive control; ludicrous non contract rate quotes for TIH-chemical.

COMMENT 29
Our company's southeastern site is a captive facility solely serviced by one railroad. In 2011 we were exposed to a 4% rate increase across the board. There isn't any other competition on rail to keep the freight reasonable. Due to the rate increase we have been forced to use trucking for several shipments.

COMMENT 30
The average fuel surcharge inflation for other modes of transportation is 3.3%, while rail surcharge inflation is 12.2%.

COMMENT 31
Increases for TIH car holding/storage/demurrage. Bundling across all commodities. Liability shifting applies to TIH. Intra plant switch costs, all commodities.

COMMENT 32
Many of our bulk truck carriers have held their freight rates for 2 to 3 years. We have seen demurrage expense rise, but mostly due to new chargeable occurrences for which the railroads never charged us before, such as holding empty cars on railroad tracks. Demurrage today is non-

negotiable. We were about to file a rate complaint but the business was recently lost to foreign supply. Included in that complaint would have been the objection to the unfair percentage fuel surcharge vs. the fairer mileage based fuel surcharge. . A railroad is seeking indemnification for its negligence. That railroad's contention is that the nature of the product gives the carrier a pass on its own negligence. Another railroad refused to quote on the TIH chemical rate, inasmuch as we had another route option. We thus lost competitive leverage as the other railroad participants found out when attempting to work the freight rate options.

COMMENT 33

Nine products in particular are covered in our responses.

COMMENT 34

One carrier was unwilling to compete against another carrier on some competitive lanes.

COMMENT 35

TIH chemicals, high pressure gases in intermodal service, captive and non-captive ship points.

COMMENT 36

Rates go up every year on liquid and dry products even though trucking rates don't always go up. For gases rates are going up every six months.

COMMENT 37

Clauses in our contracts that prevent the use bulk trucks via open terminals to delivery to captive destinations.

COMMENT 38

The above items cut across all products.

COMMENT 39

One railroad treats our chemicals as TIH and rates them accordingly and the fuel surcharge is a % of the rate.

COMMENT 40

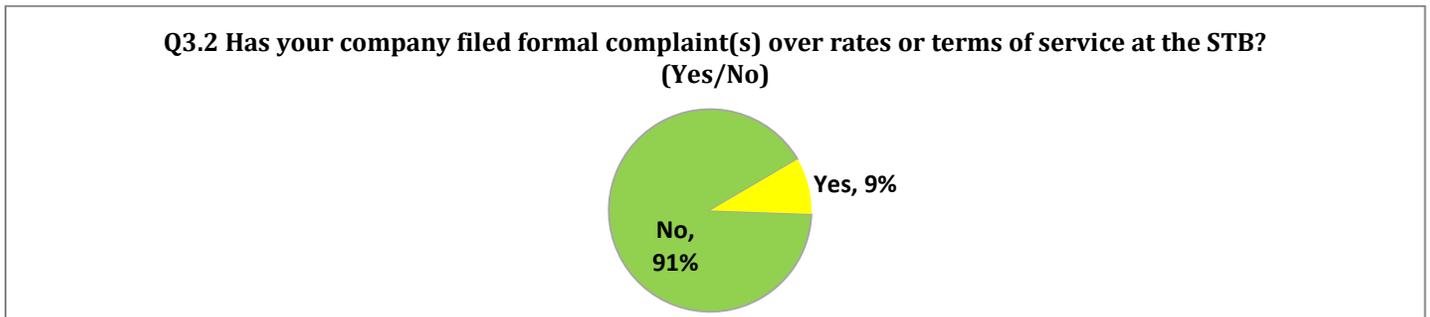
Rail rates increase 6-7% a year in comparison to 5-1% for over the road transportation.

The following questions (Q3.2, Q3.3, and Q3.4) pertain to potential STB actions that your company may have sought to resolve rail rates and service conditions over the past five years.

Q3.2 Has your company filed formal complaint(s) over rates or terms of service at the STB? (Yes/No)

Item response: 74/76=97%

Only 9% of companies have filed formal complaint(s) over rates or terms of service at the STB over the past five years.

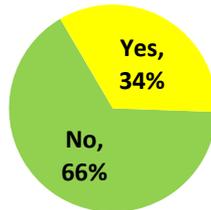


Q3.3 Has your company chosen not to file an STB complaint due to costs or other barriers? (Yes/No)

Item response: 73/76=96%

Thirty-four percent (34%) of companies have chosen not to file an STB complaint due to costs or other barriers.

Q3.3 Has your company chosen not to file an STB complaint due to costs or other barriers? (Yes/No)

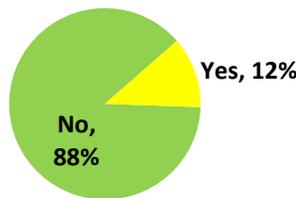


Q3.4 Has your company used STB's informal procedures to resolve a matter with your rail carrier(s)? (Yes/No)

Item response: 73/76=96%

Only 12% of companies assert that they have used STB's informal procedures to resolve a matter with your rail carrier(s) over the past 5 years.

Q3.4 Has your company used STB's informal procedures to resolve a matter with your rail carrier(s) (Yes/No)



Companies were also asked to provide examples and/or additional information related to their responses in Q3.2-3.4. Twenty-seven (27) companies provided comments.

Q3.2-3.4 COMMENTS:

COMMENT 1

The simple fact is that we don't want to make a bad situation worse. We have contacted the STB regarding the issue of "Common Carrier Obligation". Well documented research has indicated that during the past 42 years, there have been 1.5 million rail shipments of chlorine with only eleven breaches of the railcar due to collision or derailment. While we are not minimizing the significant impact, either actual or potential, of this, this equates to 1 in 136,000 shipments of the chemical (0.0007%), and none of these breaches were caused by the chemical related issues.

COMMENT 2

We could not afford to enter litigation as a standalone, and found nothing would change anyway.

COMMENT 3

Company received an unexpected charge of \$100k for TIH detention in January 2012.

COMMENT 4

As an example of the bundling of contract rates we have been offered contracts that are "all or nothing" meaning we either take the good with the bad in the bundle. By signing the bundled contract we cannot go to the STB.

COMMENT 5

Only to the Railroad and our suppliers.

COMMENT 6

See latter comments within Section 3.1 ["Many of our bulk truck carriers have held their freight rates for 2 to 3 years. We have seen demurrage expense rise, but mostly due to new chargeable occurrences for which the railroads never charged us before, such as holding empty cars on railroad tracks. Demurrage today is non-negotiable."]

COMMENT 7

3.4 - We have used the STB's mandated mediation process. The mediation proved to be utterly ineffective and was simply a waste of everyone's time.

COMMENT 8

We are a small company and would like our trade association or another organization to fight these battles. We would be willing to contribute to the cause.

COMMENT 9

We have a number of lanes over which the R/VC is sufficiently high enough to be well above the threshold for filing a rate case. We have not done so for a number of reasons, not least of which is that the volumes on these lanes do not justify the expense of filing a rate case. Additionally, one always has to consider the possibility of retaliation from the railroad.

COMMENT 10

1- Rate cases filed. 2- Other lanes considered for a rate cases: market dominance, cost of challenge, and rates at tariff for length of case are significant deterrents. 3- Investigated informal process but did not use as it appeared ineffective.

COMMENT 11

Informal procedure was used to resolve local service issues with a railroad.

COMMENT 12

STB's informal resolution procedures: service issues.

COMMENT 13

Retribution from railroads.

COMMENT 14

Threaten to take action against a railroad over service issues at one location.

COMMENT 15

3.2 3.3 Company's strategy has been to work out differences through private negotiations and by creating transportation leverage (i.e., deliver via truck from a nearby trans-load site to a rail captive destination.) 3.4 see 3.3 above.

COMMENT 16

Participated in mediation at the STB to address tank car mileage equalization.

COMMENT 17

During a railroad merger our company worked with the STB to develop new interchange points during the transition period.

COMMENT 18

Currently, there's an open complaint at STB on terms of service. Consideration was given to filing a large rate case.

COMMENT 19

Service issues with a Class I railroad had our company seeking help from the STB's shipper's advocacy line.

COMMENT 20

The STB process is very time consuming and not considered a viable remedy.

COMMENT 21

We are a small shipper and don't have the resources or money to file.

COMMENT 22

We are a relatively small company and do not have the resources to file a complaint.

COMMENT 23

Chose not to file a rate case during our last contract negotiations based on potential cost and length of time to go through the rate case process. Based on volume, more an issue with our Canadian-based facilities shipping to U.S captive locations.

COMMENT 24

3.3 The process to file a complaint at STB is cumbersome and we did not have the resources and access to data required to build a case.

Q3.5 Over the past 5 years, have rail rates and service conditions issues influenced your company's decisions to take any of the actions listed in the following table? Please check all that apply and specify any other actions not listed.

Item response: $\geq 12/76 \geq 16\%$

Following "other", the most common action that companies have been influenced to take due to rail rates and service conditions has been to source raw materials from offshore. Eleven percent (11%) of companies assert that rail rates and service conditions issues have influenced their company decisions to do so.

The following table presents the actions in descending order based on the percent of companies that have taken them influenced by rail rates and service conditions.

| Action | % of companies that assert that rail rates and service conditions have influenced their company to take this action over the past 5 years |
|---|---|
| Other | 16% |
| Source raw materials from offshore | 11% |
| Site new production facilities based on captivity of rail service | 9% |
| Forego US capacity expansion | 7% |
| Close a "captive" production facility | 5% |
| Shut a line of production at a "captive" production facility | 4% |
| Shut a line of production at a "non-captive" production facility | 4% |

Close a “non-captive” production facility

1%

The most frequently selected action was “other”. Companies that selected “other” were asked to provide a description. They are listed here in random order.

OTHER DESCRIPTIONS:**OTHER 1**

Bulk truck options over rail.

OTHER 2

Consider alternate products.

OTHER 3

Northeast brownfield site marketing.

OTHER 4

Shift from rail to truck investment; shift production sites.

OTHER 5

Change from rail to truck in some cases.

OTHER 6

We have looked at altering our distribution network to bypass the current rail road so we can get into another region with better rates.

OTHER 7

We have shifted production to Canadian facilities that have multiple carrier access through interswitching.

OTHER 8

Facility closer to the port.

OTHER 9

Ship via transload/distribution over direct rail.

OTHER 10

Moved shipments to bulk truck - more costly to us.

OTHER 11

Shift from rail to truck.

OTHER 12

1- Consideration to co-location of facilities to avoid rail freight. 2-Ship a non-TIH versus a TIH chemical.

Companies were also asked to provide examples and/or additional information related to their responses in Q3.5. Twenty companies provided comments. They are listed in here in random order.

Q3.5 COMMENTS:**COMMENT 1**

We have global sourcing and global manufacturing capabilities. We look at the total cost of the supply chain so inbound/outbound freight costs and associated charges are a critical component of the decisions made for the manufacturing location.

COMMENT 2

We have had customers ask to move via bulk truck as the rail rate out of a specific plant was higher than they could get from others by rail - trucking was a lower cost and faster to them.

COMMENT 3

We have been actively marketing portions of a major production site as an industrial park complex and interested tenants have walked away due to the captive rail situation.

COMMENT 4

1- The closure of the Canadian plant was cost/freight driven. 2. Idling of production at another Canadian plant were cost/freight driven. 3. Plant economic evaluations impacted by freight. 4. A different product was shipped via rail to reduce TIH shipments.

COMMENT 5

Evaluated the moving of production to a new location offering more transport options (2 RR service) but cost was prohibitive.

COMMENT 6

Company has the ability to bring competition between the railroads due to the various different railroads at each plant facility and the ability to produce several of the same products at the facilities. Thus all roads compete for the business.

COMMENT 7

The simple fact is it can cost a significant amount in 'special handling and freight charges' just to bring in one railcar of a TIH chemical. Faced with this, we have to decide whether it is cost prohibitive to maintain certain operations at specific facilities.

COMMENT 8

We are actively working to eliminate the need to ship a liquid TIH chemical. This is being accomplished by converting TIH chemical into other derivatives.

COMMENT 9

Expansion is being planned in other parts of the world due to rail freight rates.

COMMENT 10

None of the above.

COMMENT 11

Recently we've started bringing in raw materials via waterborn transportation to escape the high rail rates. We have performed numerous studies on how we can bypass the railroad from our southeast location with raw materials and export Products.

COMMENT 12

Will always chose a multi-served site over a single-served site.

COMMENT 13

Rail freight is a big determining factor in sourcing decisions.

COMMENT 14

Company shifted inbound TIH from rail to truck due to rail rate being 4x that of truck. Closed a plant in the central U.S. and rebuilt it in the southeast in part because of the plants proximity to other chemicals supply.

COMMENT 15

New plants are being placed on short lines that service to more than one Class 1 RR.

COMMENT 16

We sourced one material from Korea as a result of uncompetitive rail rates from U.S. Gulf to the Northwest.

COMMENT 17

Where available have worked with customers that are captive on alternative delivery options.

COMMENT 18

Picking a re-packing facility that is closer and cost effective for the supplier to deliver via rail, but still closer to the port.

COMMENT 19

To the extent possible, we routinely source our chemical a customers in the south central and southeastern U.S. from our Canadian plants despite having a production site in the southeast

COMMENT 20

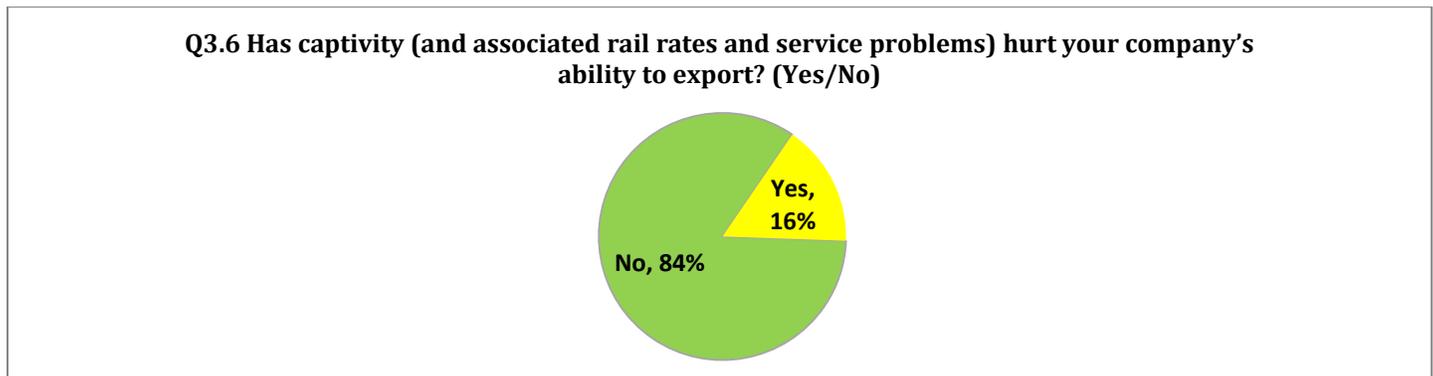
High TIH rates in particular contributed to the decision to close one production plant.

The following questions (Q3.6-3.9) pertain to some of the issues that may have evolved if your company operated production facilities that were captive to a single railroad (via inbound rail transportation, outbound, or both). Please consider each and respond “Yes”, “No”, or not applicable “N/A.”

Q3.6 Has captivity (and associated rail rates and service problems) hurt your company’s ability to export? (Yes/No)

Item response: 73/76=96%

About 30% of companies responded “n/a” to this item. Considering only the companies to which Q3.6 applies, 16% of companies claim that captivity (and associated rail rates and service problems) hurt their ability to export.

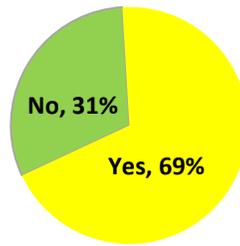


Q3.7 Has captivity (and associated rail rates and service problems) hurt your company’s ability to meet customer demand? (Yes/No)

Item response: 74/76=97%

About 16% of companies responded “n/a” to this item. Considering only the companies to which Q3.7 applies, 69% of companies claim that captivity (and associated rail rates and service problems) hurt their ability to meet customer demand.

Q3.7 Has captivity (and associated rail rates and service problems) hurt your company's ability to meet customer demand? (Yes/No)

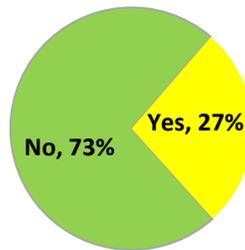


Q3.8 Has captivity (and associated rail rates and service problems) hindered your company from making domestic investments? (Yes/No)

Item response: 73/76=96%

About 26% of companies responded "n/a" to this item. Considering only the companies to which Q3.8 applies, 27% of companies reported that captivity (and associated rail rates and service problems) hindered their company from making domestic investments.

Q3.8 Has captivity (and associated rail rates and service problems) hindered your company from making domestic investments? (Yes/No)

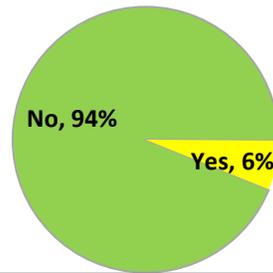


Q3.9 Has captivity (and associated rail rates and service problems) fostered your company's decision to increase investment outside the US? (Yes/No)

Item response: 73/76=96%

About 30% of companies responded "n/a" to this item. Considering only the companies to which Q3.9 applies, only 6% of companies reported that captivity (and associated rail rates and service problems) has fostered their company's decisions to increase investment outside the US.

Q3.9 Has captivity (and associated rail rates and service problems) fostered your company's decision to increase investment outside the US? (Yes/No)



Companies were also asked to provide examples and/or additional information related to their responses in Q3.6-3.9. Twenty-four companies provided comments. They are listed in here in random order.

Q3.6-3.9 COMMENTS:

COMMENT 1

Poor service has caused us to ship as little by rail as possible.

COMMENT 2

Difficulties in securing contracted switches and on-time car placements.

COMMENT 3

Not really a decision I can respond too.

COMMENT 4

Our U.S. facilities rely on rail for only a small portion of their freight. This is a much bigger issue for our Canadian facilities.

COMMENT 5

It goes without saying that available funds for capital expenditure projects and or any operating expenses have a significant role in the decisions made on a daily basis. Given the amount of money spent as a result of the exorbitant rates charged by the railroad, it also goes without saying that money that might otherwise be spent on improving our facilities and or other investments is simply not available.

COMMENT 6

The rail rates had to be passed on to the customer in product pricing.

COMMENT 7

Our company is rail captive. We are currently working with the serving railroad to determine if rail rates on our chemical can be lowered to certain proposed sites so that we can compete with product delivered to markets in South America. If a competing railroad served the origin plan then our company would have an inherent choice to implement different routes to proposed port sites and the base rates would be lower in theory (a reduction of 25% to 30%).

COMMENT 8

Periodic service issues at any of our U.S. plant sites have a negative impact on our ability to serve our customers in a timely manner. On occasion, this forces us to truck to a customer in order to keep them supplied to railcars begin to arrive. Insofar as capital investment and using our chemical plant operations as the example; in recent years, the bulk of our capital investment intended to expand production or enhance

our loading has been at the Canadian plants. As noted previously, these Canadian sites are open to multiple carriers through interswitching.

COMMENT 9

Higher costs of inbound raw materials results in more competitive options overseas.

COMMENT 10

For example we have had to truck material to the end user to avoid poor service areas with railroads and due to reciprocal switching issues.

COMMENT 11

Poor service has had negative impact on our customers. Rail rates are part of the economics at any of our plants, and effect their profitability, and by extension, the investments we choose to make.

COMMENT 12

There are certain products we can't make economically because the rail rates are too high. We actually ship one product to a competitor in a city that is 30 miles away from our facility because the railroad has lower rates. It is criminal that the other railroad charges so much that we can't ship product to our own division to make it work.

COMMENT 13

A railroad has on numerous occasions refused to offer a more competitive rate from our captive plants limiting our ability to obtain additional customer demand.

COMMENT 14

Our company is not captive at our major plant for rail shipping we are open to two railroads. At that plant captivity has not negatively at this time effected operations.

COMMENT 15

1.- Rail rates to export locations are not competitive. 2- Service issues resulting in modal shifts at higher cost to prevent customer disruption

COMMENT 16

One of our southeast manufacturing facilities has Class 1 service failures that impacted manufacturing and resulted in a stockout situation at a customer.

COMMENT 17

All of our major manufacturing sites in the U.S. are dual-served.

COMMENT 18

Company cannot obtain intermodal container deliver in Indiana. We must bring containers to Illinois and truck to Indiana.

COMMENT 19

Problematic and unpredictable service at captive sites in particular puts us at a disadvantage to other modes relative to customer satisfaction.

COMMENT 20

Since rail rates to and from our captive plants are higher than our competitor's non-captive plants, our net cost is higher and we lose business as a result. There is no need to expand a facility that can't compete in a commodity marketplace. We market to our customers from a captive site in Canada; the recent strike resulted in our total inability to ship to various US customers. Service problems at captive customer sites on the East Coast recently have made it impossible for us to deliver product on time via rail, we have lost business to competitors who can ship inbound by truck.

COMMENT 21

We're often shipping via truck due to inability of RR to meet demand.

COMMENT 22

Limited service at captive sites has forced us to occasionally run trucks to satisfy demand.

COMMENT 23

3.6 - If we were not captive it might make rates more affordable to ship export to local ports instead of trucking or draying. 3.7 - We have a weight restriction placed on our main line that is owned by a Class I railroad and they will not spend the money to update the rail. This has forced them to place a max weight restriction on our line. 3.8 - I feel we take the railroad service into account on any production capital investments that we look into. 3.9 - We are always attempting to improve our transportation costs and export is a big portion of our business. Being able to remove the railroad in our transportation equation would allow us to ship to our customers at a more reasonable cost per pounds. To do this we would have to invest outside the US to complete the logistics network needed to remove the volume from the rail system.

COMMENT 24

Missed switches and erratic performance (particularly from a short line railroad) cause us to incur increased operating costs making it more difficult to compete with imported goods.

4 TIH Chemicals and Rail Issues

Q4.1 In 2011, did your company ship out TIH chemicals by rail? (yes, no)

Item response: 73/76=96%

Thirty-six percent (36%) of companies shipped out TIH chemicals by rail in 2011. Sixty-four percent (64%) did not.

Q4.2 In 2011, did your company receive TIH chemicals by rail? (yes, no)

Item response: 73/76=96%

Sixty-eight percent (68%) of companies received TIH chemicals by rail in 2011. Thirty-two percent (32%) did not.

Twenty (20) companies, 27% of the total, assert that they *both* shipped out TIH chemicals by rail *and* received TIH chemicals by rail in 2011.

Fifty-six (56) companies, 77% of the total, assert that they *either* shipped out TIH chemicals by rail *or* received TIH chemicals by rail in 2011.

While 17 companies, 23% of the total, indicate that they neither shipped out TIH chemicals by rail *nor* did they receive TIH chemicals by rail in 2011. These 17 companies were excluded from the remainder of the survey (Section 4). Another 3 companies were also excluded from the remainder of the survey as they did not provide any responses to this section. In total, 20 companies were excluded from the aggregate calculations in Section 4. Fifty-six (56) companies provided responses to Section 4.

Q4.3 Survey participants were asked to provide information related to the following TIH chemicals: Chlorine, Anhydrous Ammonia, Ethylene Oxide, Hydrogen Fluoride, Methyl Mercaptan, and any additional TIH chemicals they produce.

Q4.3a, Q4.3c: In this item, companies were asked to respond to the following questions for each of the TIH chemicals listed. They were also asked to provide a response for any additional TIH chemicals that they produce that were not listed.

For each chemical:

Did your company produce this chemical? (yes/no)

Did your company ship out this chemical by rail? (yes/no)

About how much of the outbound rail transportation of this product was captive? (%)

What were the typical end uses of the TIH products your company shipped by rail?

Did your company receive this chemical by rail? (yes/no)

About how much of the inbound rail transportation of this product was captive? (%)

What were the typical end uses of the TIH products your company received by rail?

For each of the TIH chemicals listed in the following table, the count of respondent companies that produced the chemical, received it by rail, and shipped it out by rail are presented. Also presented in the table are the typical end-uses associated with the chemical that respondent companies mentioned. Because for many of the TIH chemicals listed in the table, only one company produces/ships/receives the chemical, statistics related to the amount of rail transportation that was captive cannot be reported.

| TIH Chemical | # companies that produced this chemical | # companies that shipped out this chemical by rail | Typical end uses of TIH chemical that companies shipped by rail | # companies that received this chemical by rail | Typical end uses of TIH chemical that companies received by rail |
|--|---|--|--|---|--|
| Acrylonitrile | 1 | 0 | n/a | 1 | Latex and styrene plastics |
| Allyl Alcohol | 1 | 1 | Optical lenses | 1 | Specialty chemicals |
| Allyl Chlorofomate | | | n/a | 1 | Raw material for polyamines |
| Anhydrous Ammonia | 2 | 2 | Agricultural application, feedstock, fertilizer manufacturing | 10 | Agricultural chemical production, feedstock for chemical manufacturing, fertilizers, gas purification, herbicides, personal care, wood preservatives |
| Anydrous Hydrogen Chloride | 1 | 1 | Water processing | 1 | Packaged chemical intermediate |
| Butadiene | 0 | 0 | n/a | 1 | Latex |
| C 17 | 0 | 1 | Pesticide | 0 | n/a |
| Chlorine | 10 | 7 | Agricultural herbicides, bleach, isocyanates, PVC production, TiCl ₄ , TiO ₂ , municipal water and wastewater treatment | 24 | Bleach, chlorobutyl rubber, chloroformates, cleaning products, coatings, feedstock for manufactured chemicals, flame retardants, isocyanates and polycarbonates, metal working fluids, mine belting, personal care products, plastic additives, pool/spa chemicals, specialty chemicals for residential and commercial building applications, tin stabilizers, water treatment chemical production |
| Chloropicrin | 2 | 2 | Soil fumigation, pesticide | 1 | Fumigant for pest control |
| Ethylene Oxide | 5 | 4 | Aircraft deicing, brake fluids, cleaning supplies, customer care products, detergents, finished products, gas treatment, herbicides, medical tools, rigid foams, surfactants | 12 | Agricultural, asphalt, cleaners, cosmetics, detergents, fabric care and cleaning, general ethoxylation, manufacture of derivatives, oilfield, polyols production, polypropylene glycols |
| Fuming Sulfuric Acid, 30% or Greater in Strength | 1 | 1 | In surfactants process as a brightening agent | 0 | n/a |
| Hydrogen Fluoride | 2 | 2 | Fumigant for pest control | 3 | Processed to make polymers, refrigerant gases |
| Hydrogen Sulfide | 0 | 1 | Research, metal floatation | 0 | n/a |
| Methacrylonitrile, stabilized | 0 | 0 | n/a | 1 | Raw material for acrylamide |
| Methyl Mercaptan | 2 | 2 | Chicken feed, other, poultry feed supplement | 3 | Feed additives production, etc. |
| Methyltrichlorosilane or Dimeth. | 0 | 0 | n/a | 1 | Raw material for production |
| Oleum | 1 | 1 | No data provided | 2 | Tires, polymer modifiers |
| Phosphorus Trichloride | 1 | 1 | Insecticide manufacture | 1 | Plastic additives and plasticizers |
| Propionitrile | 1 | 1 | Waste disposal - amines | 0 | n/a |
| Silicon Tetrachloride | 0 | 0 | n/a | 1 | Raw material for production |
| Sulfur Chloride | 1 | 1 | Lubricant additive, agricultural chemicals | 0 | n/a |
| Sulfur Trioxide | 0 | 0 | n/a | 1 | Drilling fluids |

| TIH Chemical | # companies that produced this chemical | # companies that shipped out this chemical by rail | Typical end uses of TIH chemical that companies shipped by rail | # companies that received this chemical by rail | Typical end uses of TIH chemical that companies received by rail |
|-----------------------------|--|---|---|--|---|
| Sulfur Dioxide | 3 | 3 | Water treatment, wine, pulp and paper, food processing, paper/bleaching | 6 | Fertilizers and specialty chemicals, paper bleaching, primarily municipal water and wastewater treatment facilities, water treatment, fumigant for pest control and insecticide, packaged chemical intermediate |
| Tantilum Waste | 1 | 1 | Waste product | 0 | n/a |
| Telone | 0 | 0 | n/a | 1 | Pesticide |
| TIH Hazardous Waste | 0 | 0 | n/a | 1 | Sulfur recovery via processing |
| Toulene Diisocyanate | 0 | 1 | Mattress bedding | 0 | n/a |
| UN1017 Chlorine | 0 | 0 | n/a | 1 | Specialty chemicals for residential and commercial building applications |

Companies were also asked to provide examples and/or additional information related to their responses in Q4.3a-d. Five companies provided comments that could be reported. They are listed in here in random order.

Q4.3a-d COMMENTS:

COMMENT 1

Our company's supplier of a TIH product gets rates from two railroads and then decides which one to ship on. Another TIH supplier, which is captive, pays outrageous rates to ship to us.

COMMENT 3

4.3b - Our company produced materials using purchased TIH chemicals.

COMMENT 2

The answers to 4.3c above reflect 2011 data. Today, about 70% of our outbound TIH chemical transportation is captive as the result of a marketing agreement from a second production facility.

COMMENT 4

No other TIH's received or produced.

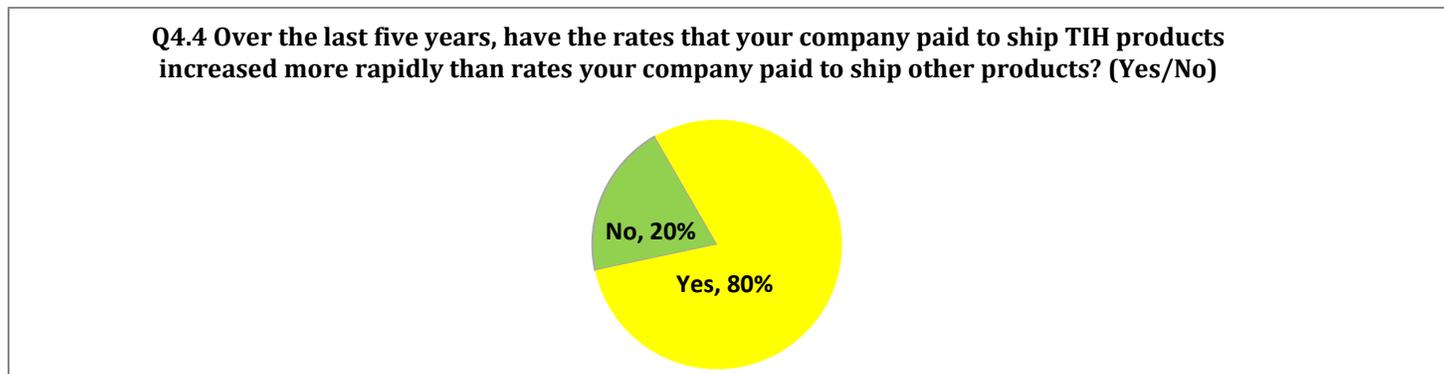
COMMENT 5

There isn't really anything more to be said regarding this.

Q4.4 Over the last five years, have the rates that your company paid to ship TIH products increased more rapidly than rates your company paid to ship other products? (Yes/No)

Item response: 44/56=79%

Eighty (80%) of companies (35 companies) report that over the past five years, the rates that they paid to ship TIH products increased more rapidly than rates they paid to ship other products.



Q4.4a If yes, as a percentage, how much higher were the rates to ship TIH products compared to non-TIH products? Please provide an estimate here.

Item response: 31/35=89%

| Premium paid (percentage difference) to ship TIH products compared to non-TIH products | |
|--|--------|
| Average | 221% |
| Minimum | 3% |
| Median | 75% |
| Maximum | 2,400% |

Q4.5 Has your company had a rail carrier impose or attempt to impose any of the following specifically for TIH shipments? (yes/no) Please provide your response regarding both Class I and short line railroads.

Item response: 41/56=73%

| | Class I Railroads (% yes) | Short line Railroads (% yes) |
|--|--|---|
| Liability indemnification requirements | 61% | 21% |
| Requirements for TIH train operations such as dedicated train, speed limits | 17% | 27% |
| Other tariff provisions | 43% | 28% |

Companies were also asked to provide examples and/or additional information related to their responses in Q4.5. Sixteen companies provided comments. They are listed in here in random order.

Q4.5 COMMENTS:

COMMENT 1

Our company doesn't ship TIH.

COMMENT 2

High switching and storage charges.

COMMENT 4

Two railroads have asked for indemnification. All railroads have imposed excessive storage fees for TIH cars. Another railroad now requires a dedicated very expensive train with typically a single car.

COMMENT 5

Liability shifting in contracts. Special train service. storage/demurrage.

COMMENT 6

Higher demurrage fees.

COMMENT 7

High storage rates in the rail yard.

COMMENT 8

Switch and demurrage costs.

COMMENT 9

A railroad will look at on a case by case basis. Will not accept all TIH loads. Speeds are restricted on TIH, sometimes number of cars is limited.

COMMENT 10

Responses refer to inbounds only since we do not ship outbound TIH products.

COMMENT 11

While we are aware of a tariff governing TIH transportation, it has not impacted us. Two carriers have attempted to insert liability indemnification requirements in our agreements.

COMMENT 12

Chain-of-custody requirements are now required to sign-off various railroad handlings of the TIH load. \$1,000 per day demurrage for two days-then car automatically returned to origin.

COMMENT 13

Indemnify against third party liability.

COMMENT 14

A Class I railroad servicing one of our branches has requested that we sign an agreement indemnifying them all liability in the event of an incident involving a PIH/TIH product, regardless of whether they were clearly at fault or not. Another Class I railroad has modified the DHS's regulations applicable to bringing in PIH/TIH railcars within 48 hours to 24 hours. The charge for failure to bring a railcar in within 24 hours of being notified of its availability is expensive. Clearly, this is nothing more than an attempt to generate revenue as the transit time from the shipper to a facility can vary widely; i.e., we have no control over the cars and or their transit so if multiple cars somehow all arrive at the same time, we inevitably find ourselves in the position of not being able to bring all cars in, again, resulting in a significant monetary penalty. With respect to short line railroads, four of our eleven facilities are serviced by these railroads. One of the short-line railroads has made it perfectly clear that the only reason they are servicing us is due to the common carrier obligation. For reasons that are probably clear, they have levied incredibly exorbitant special handling and freight charges to bring TIH/PIH products to our facility. Alleged justification for this is due in part to help pay increasing insurance costs.

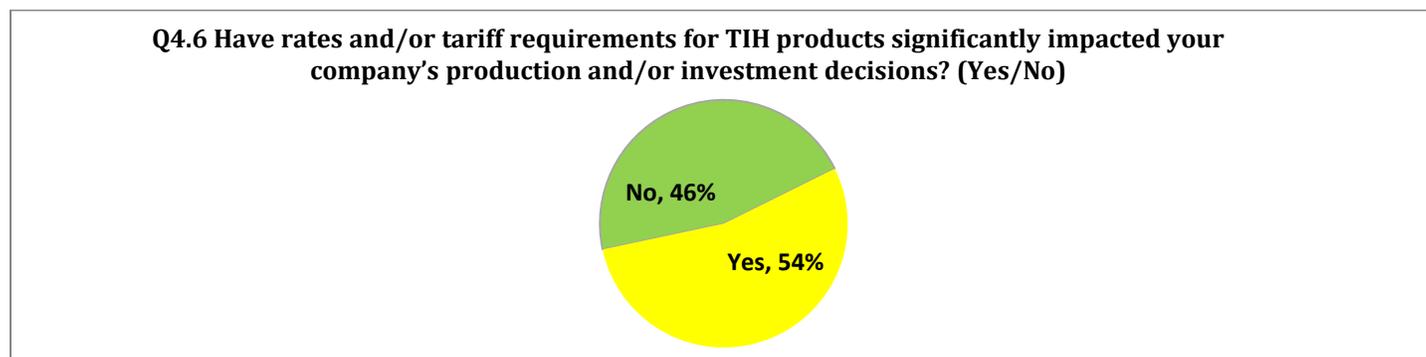
COMMENT 15

Class 1 railroad wanted absolutely no liability in switching a TIH material into our facility, even if it was a railroad error.

Q4.6 Have rates and/or tariff requirements for TIH products significantly impacted your company's production and/or investment decisions? (Yes/No)

Item response: 48/56=86%

Fifty-four percent (54%) of companies (26 companies) report that rates and/or tariff requirements for TIH products significantly impacted production and/or investment decisions.



Companies were also asked to provide examples and/or additional information related to their responses in Q4.6. Twenty-one companies provided comments. They are listed in here in random order.

Q4.6 COMMENTS:

COMMENT 1

I am going to qualify my "no" response by stating that I am not aware of any significant impact on either our production or investment decisions. The one TIH product we produce is but a small fraction of our overall business.

COMMENT 2

TIH safety and risk reduction is impacting our investment decisions on TIH primarily through the investment to create integrated sites.

COMMENT 3

Expansion of the rail spur is being considered for inbound TIH products to avoid charges while in rail yard.

COMMENT 4

Due to service/ delivery problems, have moved some product delivery from rail mode to highway requiring significant capital investment in plant unloading equipment.

COMMENT 5

Part of the reason we shut down a plant in the Midwest and rebuilt/expanded it in the Gulf Coast region was the proximity to our source of a TIH chemical. We also could have built this plant at our site in the southeast, which had much more room and rail infrastructure as well as being a primary source of raw materials. However, the railroad's pricing of TIH precluded this as well.

COMMENT 6

We have made decisions to limit TIH production and shipments due to cost to transport TIH products and we have narrowed growth plans for similar reasons.

COMMENT 7

1- Plant Operating rates strongly affected by freight rates 2- Tariffs forced alternative shipping origins/destinations 3- Production line shutdowns driven by freight costs.

COMMENT 8

The volume of TIH and these exorbitant costs to ship it pales in comparison to the impact of slowing down or shutting down a refinery. The material has to move so we are not backed up/impacted.

COMMENT 9

A TIH chemical is a required feedstock for production at refrigerant plants.

COMMENT 10

Investigating plant closures due to transportation issues.

COMMENT 11

We are investing in truck equipment vs. rail for TIH outbound products. We have sited a plant that can receive TIH raw material by pipeline vs. rail.

COMMENT 12

Our company's construction of a pipeline was approved and implemented.

COMMENT 13

In 2012, our TIH move of a chemical has ended as production has been switched to India vs. the USA.

COMMENT 14

Investment is being considered in other parts of the world.

COMMENT 15

Plants are at a competitive disadvantage as it pertains to inbound TIH freight vs. our plants overseas.

COMMENT 16

Freight rates, to include special handling charges, have not only significantly impacted our operating expenses but they have put us in a position of being non-competitive with those that are not subject to these same conditions.

COMMENT 17

Rates for shipping TIH vary greatly across our production facilities. Locations with comparatively high logistics costs are disadvantaged and less attractive for investment.

COMMENT 18

Produce closer to the source of the raw materials.

COMMENT 19

We have stopped using chemical in certain applications because it drove the cost of our product too high. For TIH chemicals we are losing chemical market share to some of our competitors that make the product and are not fighting these high rail rates.

COMMENT 20

Switched TIH chemical to truck due to rail rate being higher than truck.

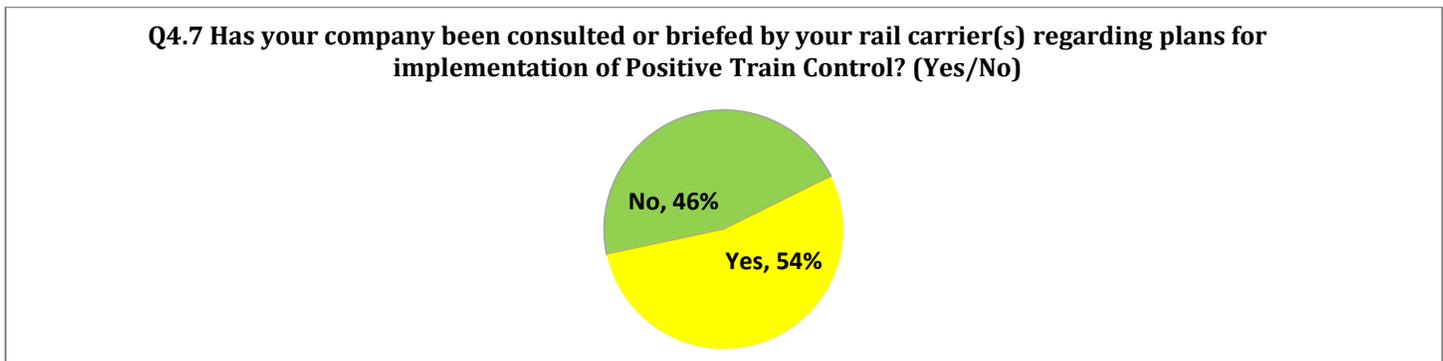
COMMENT 21

Fewer capital investments.

Q4.7 Has your company been consulted or briefed by your rail carrier(s) regarding plans for implementation of Positive Train Control? (Yes/No)

Item response: 50/56=89%

Fifty-four percent (54%) of companies (27 companies) report that they have been consulted or briefed by their rail carrier(s) regarding plans for implementation of Positive Train Control.



Companies were also asked to provide examples and/or additional information related to their responses in Q4.7. Sixteen companies provided comments. They are listed in here in random order.

Q4.7 COMMENTS:

COMMENT 1

Railroads are attempting to pass on the costs of the PTC in the form of higher freight rates.

COMMENT 2

Generally, yes. Our rail carrier sales reps have provided information on PTC implementation during their visits. Additionally, we have attended industry meetings where PTC was an agenda topic. Too, there have been innumerable articles written in the trade press regarding PTC, its costs and its limitations.

COMMENT 3

Have not had discussion regarding implementation, only cost and timing.

COMMENT 4

One railroad specifically met with our company to review the effort, specifically the dollar impact to that railroad and lack of federal funding.

COMMENT 5

More from suppliers and other sources.

COMMENT 6

Railroads have only provided general information of their spending on PTC in their attempts to justify rate increases.

COMMENT 7

One railroad provided some general awareness a couple of years ago.

COMMENT 8

1- Magnitude of capital and operating expense planned. 2. Contracts reflect terms to allow passing on of costs.

COMMENT 9

An employee must be present for receipt of TIH.

COMMENT 10

Most of the major Class I railroads have given PTC presentation outlining implementation requirements and timelines.

COMMENT 11

Just information at this point.

COMMENT 12

Have proposed PTC surcharge.

COMMENT 13

Discussed the expected cost impact of PTC on non-TIH shippers. Railroads have been non-committal, so there is a concern that all shippers could be impacted by higher costs due to PTC.

COMMENT 14

Railroads advise that TIH is forcing them to invest in PTC.

COMMENT 15

Every time we meet they complain of the cost and the uselessness of the government mandate.

COMMENT 16

Not applicable.

Q4.8-4.9 The following questions pertain to rail rates and service conditions issues that your company may have been confronted with over the past 5 years. Please respond to each question with regard to the TIH materials that you received by rail (inbound) and the products that you shipped out (outbound).

Item response: 47/56=84%

| | Inbound Rail Transportation | | | Outbound Rail Transportation | | |
|--|-----------------------------|--------|---------|------------------------------|--------|---------|
| | (% yes) | (% no) | (% n/a) | (% yes) | (% no) | (% n/a) |
| 4.8 Has your company been confronted with a railroad's refusal to transport TIH materials in intermodal rail service? | 0% | 60% | 40% | 2% | 51% | 46% |
| 4.9 Has your company had routings for TIH materials altered to account for security or safety concerns? | 32% | 59% | 10% | 37% | 53% | 11% |
| 4.9a Did any routing changes for TIH materials preclude your company from reaching a customer? | 0% | 76% | 24% | 5% | 70% | 25% |
| 4.9b Were routing changes for TIH materials discussed with your company in advance? | 20% | 49% | 32% | 15% | 51% | 33% |

Companies were also asked to provide examples and/or additional information related to their responses in Q4.8-4.9. Twelve companies provided comments. They are listed in here in random order.

Q4.8-4.9 COMMENTS:

COMMENT 1

We've been advised by a Class I railroad servicing one of our facilities that routes for inbound shipments would be modified so as to ensure that the train carrying TIH/PIH products did not pass through a densely populated area.

COMMENT 2

1- Rail carriers reduced secure interchanges and require re-routing of traffic (usually at higher cost and increased cycle time).

COMMENT 3

Our company doesn't ship TIH.

COMMENT 4

A railroad altered the plant switching plan and routing plan for our TIH shipments moving through the rail interchange gateway point with minimal notice.

COMMENT 5

Unsure about inbound, handled by the vendor.

COMMENT 6

Our company does not have loaded out-bound products.

COMMENT 7

Our company has a contract rate for TIH which is significantly below public rate, albeit significantly higher than the truck rate, on condition that we use it sparingly.

COMMENT 8

I have heard my suppliers tell me there are certain routes that the railroad won't ship their product so they are going long distances when shipping product to us.

COMMENT 9

Due to changes in interchange cities, several days can be added to transit times.

COMMENT 10

The interchange gateway was targeted for a successor gateway but the initiative did not come to fruition.

COMMENT 11

Our company had to increase mileage for a TIH move to allow for positive hand-off.

COMMENT 12

Once in a while a few TIH shipments cannot go to intended customer; we have to pass on that opportunity.

Appendix – Questionnaire and Important Terms

ACC Rail Issues Survey

The American Chemistry Council (ACC) is conducting this survey in order to:

1. assess the extent that member companies rely on rail service;
2. ascertain information on shipper captivity to the major line-haul railroads; and
3. identify significant rail issues confronting shippers and receivers.

Your company's input is key to ACC's ability to effectively illustrate the chemical sector's rail challenges before Congress and key stakeholders, to fully comprehend the business impacts of rail actions, and to highlight the economic benefits of our industry. The results of the survey will be used to support legislative and regulatory advocacy on policies impacting the rail transportation of chemical products, including TIH materials. For companies that ship and/or receive Toxic Inhalation Hazard (TIH) materials by rail, there is an additional set of TIH-specific questions.

As you respond to this survey, please consider your company's experiences only through 2011 as ACC is not seeking forward-looking information. Please also refer to the definitions of the important terms that are presented herein. All survey responses will be transmitted directly to Veris Consulting, Inc. (Veris). Veris will maintain the responses with strict confidentiality. In addition, Veris will retain all data in secured files; restrict access to any confidential information to only Veris-approved staff; and apply record retention policy to electronic records as directed by ACC. Veris will remove all identifying information prior to transmitting the survey results to ACC.

We greatly appreciate your time and effort towards completing this important survey.

Contact Information:

Please provide your contact information here. This information will only be used to assist Veris during data analysis when follow-up is necessary or when clarification on a particular response is needed. Company identities will not be reported in the survey findings.

Company Name

Contact Person for survey related follow-up or inquiries:

Name

Phone

Email

Important Terms

Please keep these important terms in mind as you respond to the survey.

CAPTIVE – A facility is captive if it has no competitive alternative to the line-haul (Class I) railroad that serves its location. A facility that is physically served by only one railroad may not be captive if it has effective "commercial access" to other Class I railroads.

CLASS I RAILROADS – BNSF, CSX, Kansas City Southern, Norfolk Southern, Union Pacific, Canadian National (US lines), Canadian Pacific (US lines).

COMMERCIAL ACCESS – Access by a railroad that serves a shipper's facility or by other railroads that can *effectively* provide competitive service through a neutral short-line, switching or terminal railroad; reciprocal switching; hauling; or trackage rights. Commercial access requires meaningful competition for traffic without undue control by the railroad that owns the tracks to the facility (such as cancellation of reciprocal switching; inferior service to haulage customers; or excessive trackage rights fees).

RAIL RATE – The price paid to a railroad for transportation service.

RATE BUNDLING – Rate bundling refers to the railroad practice of combining all origin-destination lanes under a single contract and refusing to quote a tariff rate for an individual lane. This practice can deprive a shipper of the practical ability to challenge an individual tariff rate before the Surface Transportation Board.

RULE 11 RATES – Rule 11 Rates refer to the use of an accounting rule which is invoked when traffic is tendered as interline

forwarded and a single "through rate" does not exist. Under Rule 11 pricing, the connecting railroad and the interline railroad provide separate rates for the services they provide.

SHORT-LINE, SWITCHING or TERMINAL RAILROAD – A small railroad that picks up and delivers rail cars and interchanges traffic with Class I or line-haul railroads.

STB - Surface Transportation Board

TIH Chemicals – Toxic Inhalation Hazard Chemicals – Chemicals defined as Toxic Inhalation Hazards under the rules of the US Department of Transportation's Pipeline and Hazardous Materials Safety Administration (US Code of Federal Regulations, Title 49) such as chlorine, anhydrous ammonia, sulfur dioxide, ethylene oxide, hydrogen fluoride, and methyl mercaptan.

1. Rail Use

1.1 In 2011, did your company ship out manufactured chemical products by rail?

Yes

No

1.2 In 2011, did your company receive raw material by rail?

Yes

No

2 – Facility Information and Rail Captivity

2.1 In total, how many chemical production facilities did your company operate in the US? (Do not include distribution centers, warehouses, terminals, rail storage yards, transloading facilities, etc.)

2.2 Of those facilities, how many were rail-served?

2.3 How many of your rail-served facilities received raw materials by rail?

Of these facilities with inbound rail transportation, how many were captive to a single railroad?

Of these facilities with inbound rail transportation, how many received TIH chemicals by rail?

2.4 How many of your rail-served facilities shipped out chemical products by rail?

Of these facilities with outbound rail transportation, how many were captive to a single railroad?

Of these facilities with outbound rail transportation, how many shipped out TIH chemicals by rail?

2.5 What percentage of your company's outbound lanes were captive at the origin and/or destination site?

2.6 In the past, rail customers have asserted that they pay a premium for rail service to and from their "captive" facilities when compared to facilities that are not captive. If your company had both captive and non-captive production facilities, for comparable volumes, distances, and service, how much higher were rail rates for your captive production facilities?

Please provide your best estimate of the percentage difference. If there was no difference in the rail rates, please respond with "0%". If your company did not have both captive and non-captive facilities, please mark in the "N/A" column.

| | Percentage | N/A |
|--|----------------------|--------------------------|
| How much more did you pay for rail service to/from your captive production facilities? | <input type="text"/> | <input type="checkbox"/> |

3 – Rail Rates and Service Conditions Issues

3.1 We would like to understand the rail rates and service conditions issues that your company has been confronted with over the past 5 years. If your company has experienced any of the issues listed in the following table please let us know. Check all that apply.

- Rail freight rates increasing more than rates for other modes of transportation
- Railroad fuel surcharges over and above the underlying freight rates
- Substantial increases in other ancillary charges (storage, demurrage, etc.)
- Refusal to transport materials in intermodal rail service
- Refusal to provide requested Rule 11 rates
- "Bundling" of contract rates in a way that precludes challenging tariff rates for certain products or lanes
- Rate levels that led your company to consider filing a complaint at the Surface Transportation Board
- Efforts to shift liability from the railroad to the shipper for incidents involving specific materials
- Refusal to quote rates or routes for certain products or lanes
- One railroad effectively choosing not to compete with another railroad for your business
- Refusal to quote rates over a "bottleneck" segment to reach another carrier for onward service when only the bottleneck part of an origin-to-destination route is captive.
- Refusal to provide "reciprocal switching" that would allow traffic that originates or terminates within a terminal area to be moved by another line-haul carrier.

Please provide examples and/or additional information related to your responses in Question 3.1, including the type of product(s) affected (e.g. "environmentally sensitive chemical").

The following questions pertain to potential STB actions that your company may have sought to resolve rail rates and service conditions over the past five years. Yes/ No

- 3.2 Has your company filed formal complaint(s) over rates or terms of service at the STB?
- 3.3 Has your company chosen not to file an STB complaint due to costs or other barriers?
- 3.4 Has your company used STB's informal procedures to resolve a matter with your rail carrier(s)?

Please provide examples and/or additional information related to your responses in Questions 3.2-3.4

3.5 Over the past 5 years, have rail rates and service conditions issues influenced your company's decisions to take any of the actions listed in the following table? Please check all that apply and specify any other actions not

listed.

- Close a "captive" production facility
- Close a "non-captive" production facility
- Shut a line of production at a "captive" production facility
- Shut a line of production at a "non-captive" production facility
- Forego US capacity expansion
- Source raw materials from offshore
- Site new production facilities based on captivity of rail service
- Other (please describe):

Please provide examples and/or additional information related to your responses in Question 3.5

The questions in the following table pertain to some of the issues that may have evolved if your company operated production facilities that were captive to a single railroad (via inbound rail transportation, outbound, or both). Please consider each and respond "Yes", "No", or not applicable "N/A."

| | Yes | No | N/A |
|--|-----------------------|-----------------------|-----------------------|
| 3.6 Has captivity (and associated rail rates and service problems) hurt your company's ability to export? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3.7 Has captivity (and associated rail rates and service problems) hurt your company's ability to meet customer demand? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3.8 Has captivity (and associated rail rates and service problems) hindered your company from making domestic investments? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3.9 Has captivity (and associated rail rates and service problems) fostered your company's decision to increase investment outside the US? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please provide examples and/or additional information related to your responses in Questions 3.6-3.9

4 - TTH Chemicals and Rail Issues

While rail rates and services are a significant issue for all shippers, toxic inhalation hazard (TIH) products may be particularly impacted. Publicly available data suggests that rates for TIH shipments have risen significantly faster than rates for other product movements. In addition, some railroads have moved to impose restrictions and requirements specifically for TIH movements. ACC is seeking data from TIH shippers and customers to better understand the extent that these practices have been adopted as well as the impacts on your businesses.

In this section, we're requesting information related to your company's facilities where TIH chemicals were either shipped out by rail or received by rail. **If your company did not ship out nor receive TIH chemicals at any of its production facilities please skip this section as the items will not apply to your company.**

4.1 In 2011, did your company ship out TIH chemicals by rail?

- Yes
- No

4.2 In 2011, did your company receive TIH chemicals by rail?

- Yes
- No

4.3a Please provide the information requested for each of the following TIH chemicals.

| | Did your company produce this chemical? | Did your company ship out this chemical by rail? | About how much of the outbound rail transportation of this product was captive? (Enter %) | What were the typical end uses of the TIH products your company shipped by rail? |
|---------------------|---|--|---|--|
| TIH Chemical | | | | |
| Chlorine | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Anhydrous Ammonia | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Ethylene Oxide | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Hydrogen Fluoride | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Methyl Mercaptan | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

4.3b Please provide the information requested for each of the following TIH chemicals.

| | Did your company receive this chemical by rail? | About how much of the inbound rail transportation of this product was captive? | What were the typical end uses of the TIH products your company received by rail? |
|---------------------|---|--|---|
| TIH Chemical | | | |
| Chlorine | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Anhydrous Ammonia | <input type="text"/> | <input type="text"/> | <input type="text"/> |

| | | | |
|-------------------|----------------------|----------------------|----------------------|
| Ethylene Oxide | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Hydrogen Fluoride | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Methyl Mercaptan | <input type="text"/> | <input type="text"/> | <input type="text"/> |

4.3c Please provide the information requested for any additional TIH chemicals you produced.

| | What is the name of the chemical? | Did your company produce this chemical? | Did your company ship out this chemical by rail? | About how much of the outbound rail transportation of this product was captive? | What were the typical end uses of the TIH products your company shipped by rail? |
|----------------------------|-----------------------------------|---|--|---|--|
| <u>TIH Chemical</u> | | | | | |
| Chemical 1 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Chemical 2 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

4.3d Please provide the information requested for any additional TIH chemicals you received.

| | What is the name of the chemical? | Did your company receive this chemical by rail? | About how much of the inbound rail transportation of this product was captive? | What were the typical end uses of the TIH products your company received by rail? |
|----------------------------|-----------------------------------|---|--|---|
| <u>TIH Chemical</u> | | | | |
| Chemical 1 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Chemical 2 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Please provide examples and/or additional information related to your responses in Question 4.3

4.4 Over the last five years, have the rates that your company paid to ship TIH products increased more rapidly than rates your company paid to ship other products?

- Yes
- No

4.4a If yes, as a percentage, how much higher were the rates to ship TIH products compared to non-TIH products? Please provide an estimate here.

| | | |
|---|----------------------|--------------------------|
| | %: | N/A |
| How much more did you pay for rail service to ship TIH chemicals (compared to rates for non-TIH chemicals)? | <input type="text"/> | <input type="checkbox"/> |

4.5 Has your company had a rail carrier impose or attempt to impose any of the following specifically for TIH shipments? Please provide your response regarding both Class I and short line railroads.

| | Class I Railroads (Yes, No) | Short line Railroads (Yes, No) |
|---|--------------------------------|--------------------------------------|
| Liability indemnification requirements | <input type="text"/> | <input type="text"/> |
| Requirements for TIH train operations such as dedicated train, speed limits | <input type="text"/> | <input type="text"/> |
| Other TIH tariff provisions | <input type="text"/> | <input type="text"/> |

4.6 Have rates and/or tariff requirements for TIH products significantly impacted your company's production and/or investment decisions?

- Yes
- No

Please provide examples and/or additional information related to your responses in Question 4.6

4.7 Has your company been consulted or briefed by your rail carrier(s) regarding plans for implementation of Positive Train Control?

- Yes
- No

Please provide examples and/or additional information related to your responses in Question 4.7

The questions in the following table also pertain to rail rates and service conditions issues that your company may have been confronted with over the past 5 years. Please respond to each question with regard to the TIH materials that you received by rail (inbound) and the products that you shipped out (outbound).

| | Inbound Rail Transportation (Yes, No) | Outbound Rail Transportation (Yes, No) | N/A |
|---|---------------------------------------|--|--------------------------|
| 4.8 Has your company been confronted with a railroad's refusal to transport TIH materials in intermodal rail service? | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 4.9 Has your company had routings for TIH materials altered to account for security or safety concerns? | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 4.9a Did any routing changes for TIH materials preclude your company from reaching a customer? | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| 4.9b Were routing changes for TIH materials discussed with your company in advance? | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |

Please provide additional examples and/or additional information related to Questions 4.8-4.9