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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 “retribution” from the railroads. 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.

<table>
<thead>
<tr>
<th># Chemical Production Facilities Operated in the US</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sum</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
</tr>
<tr>
<td><strong>Median</strong></td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th># Rail-Served Chemical Production Facilities Operated in the US</th>
<th>% Rail-Served Chemical Production Facilities Operated in the US</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sum</strong></td>
<td>519</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>7</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>40</td>
</tr>
</tbody>
</table>

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

### 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.

### 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: $\frac{74}{76}=97\%$

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.

<table>
<thead>
<tr>
<th>Premium paid (percentage difference) for rail service to and from captive facilities (compared to non-captive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
</tr>
<tr>
<td>Minimum</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Maximum</td>
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</tbody>
</table>

**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: $\geq \frac{56}{76} \geq 74\%$

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.

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

ACC Rail Issues Survey
Veris Consulting, Inc.

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
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.

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

Yes, 9%

No, 91%

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)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>34%</td>
<td>66%</td>
</tr>
</tbody>
</table>

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.

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 US 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: ≥ 12/76 ≥ 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.

<table>
<thead>
<tr>
<th>Action</th>
<th>% of companies that assert that rail rates and service conditions have influenced their company to take this action over the past 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>16%</td>
</tr>
<tr>
<td>Source raw materials from offshore</td>
<td>11%</td>
</tr>
<tr>
<td>Site new production facilities based on captivity of rail service</td>
<td>9%</td>
</tr>
<tr>
<td>Forego US capacity expansion</td>
<td>7%</td>
</tr>
<tr>
<td>Close a &quot;captive&quot; production facility</td>
<td>5%</td>
</tr>
<tr>
<td>Shut a line of production at a “captive” production facility</td>
<td>4%</td>
</tr>
<tr>
<td>Shut a line of production at a &quot;non-captive&quot; production facility</td>
<td>4%</td>
</tr>
</tbody>
</table>
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 the various different railroads at each plant facility and the ability to produce several of the same products at each facility. 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 waterboreng 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.
COMMENTS

COMMENT 12
Will always choose 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.

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)

No, 31%  
Yes, 69%

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.

Q3.9 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.
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 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.
<table>
<thead>
<tr>
<th>TIH Chemical</th>
<th># companies that produced this chemical</th>
<th># companies that shipped out this chemical by rail</th>
<th>Typical end uses of TIH chemical that companies shipped by rail</th>
<th># companies that received this chemical by rail</th>
<th>Typical end uses of TIH chemical that companies received by rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylonitrile</td>
<td>1</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Latex and styrene plastics</td>
</tr>
<tr>
<td>Allyl Alcohol</td>
<td>1</td>
<td>1</td>
<td>Optical lenses</td>
<td>1</td>
<td>Specialty chemicals</td>
</tr>
<tr>
<td>Allyl Chlorofomate</td>
<td></td>
<td>n/a</td>
<td></td>
<td>1</td>
<td>Raw material for polyamines</td>
</tr>
<tr>
<td>Anhydrous Ammonia</td>
<td>2</td>
<td>2</td>
<td>Agricultural application, feedstock, fertilizer manufacturing</td>
<td>10</td>
<td>Agricultural chemical production, feedstock for chemical manufacturing, fertilizers, gas purification, herbicides, personal care, wood preservatives</td>
</tr>
<tr>
<td>Anhydrous Hydrogen Chloride</td>
<td>1</td>
<td>1</td>
<td>Water processing</td>
<td>1</td>
<td>Packaged chemical intermediate</td>
</tr>
<tr>
<td>Butadiene</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Latex</td>
</tr>
<tr>
<td>C 17</td>
<td>0</td>
<td>1</td>
<td>Pesticide</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Chlorine</td>
<td>10</td>
<td>7</td>
<td>Agricultural herbicides, bleach, isocyanates, PVC production, TiCl4, TiO2, municipal water and wastewater treatment</td>
<td>24</td>
<td>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</td>
</tr>
<tr>
<td>Chloropicrin</td>
<td>2</td>
<td>2</td>
<td>Soil fumigation, pesticide</td>
<td>1</td>
<td>Fumigant for pest control</td>
</tr>
<tr>
<td>Ethylene Oxide</td>
<td>5</td>
<td>4</td>
<td>Aircraft deicing, brake fluids, cleaning supplies, customer care products, detergents, finished products, gas treatment, herbicides, medical tools, rigid foams, surfactants</td>
<td>12</td>
<td>Agricultural, asphalt, cleaners, cosmetics, detergents, fabric care and cleaning, general ethoxylation, manufacture of derivatives, oilfield, polyols production, polypropylene glycols</td>
</tr>
<tr>
<td>Fuming Sulfuric Acid, 30% or Greater in Strength</td>
<td>1</td>
<td>1</td>
<td>In surfactants process as a brightening agent</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Hydrogen Fluoride</td>
<td>2</td>
<td>2</td>
<td>Fumigant for pest control</td>
<td>3</td>
<td>Processed to make polymers, refrigerant gases</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>0</td>
<td>1</td>
<td>Research, metal floatation</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Methacrylonitrile, stabilized</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Raw material for acrylamide</td>
</tr>
<tr>
<td>Methyl Mercaptan</td>
<td>2</td>
<td>2</td>
<td>Chicken feed, other, poultry feed supplement</td>
<td>3</td>
<td>Feed additives production, etc.</td>
</tr>
<tr>
<td>Methyltrichlorosilane or Dimeth.</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Raw material for production</td>
</tr>
<tr>
<td>Oleum</td>
<td>1</td>
<td>1</td>
<td>No data provided</td>
<td>2</td>
<td>Tires, polymer modifiers</td>
</tr>
<tr>
<td>Phosphorus Trichloride</td>
<td>1</td>
<td>1</td>
<td>Insecticide manufacture</td>
<td>1</td>
<td>Plastic additives and plasticizers</td>
</tr>
<tr>
<td>Propionitrile</td>
<td>1</td>
<td>1</td>
<td>Waste disposal - amines</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Silicon Tetrachloride</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Raw material for production</td>
</tr>
<tr>
<td>Sulfur Chloride</td>
<td>1</td>
<td>1</td>
<td>Lubricant additive, agricultural chemicals</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Sulfur Trioxide</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Drilling fluids</td>
</tr>
<tr>
<td>TIH Chemical</td>
<td># companies that produced this chemical</td>
<td># companies that shipped out this chemical by rail</td>
<td>Typical end uses of TIH chemical that companies shipped by rail</td>
<td># companies that received this chemical by rail</td>
<td>Typical end uses of TIH chemical that companies received by rail</td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------------------------------------</td>
<td>---------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>3</td>
<td>3</td>
<td>Water treatment, wine, pulp and paper, food processing, paper/bleaching</td>
<td>6</td>
<td>Fertilizers and specialty chemicals, paper bleaching, primarily municipal water and wastewater treatment facilities, water treatment, fumigant for pest control and insecticide, packaged chemical intermediate</td>
</tr>
<tr>
<td>Tantilum Waste</td>
<td>1</td>
<td>1</td>
<td>Waste product</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>Telone</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Pesticide</td>
</tr>
<tr>
<td>TIH Hazardous Waste</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Sulfur recovery via processing</td>
</tr>
<tr>
<td>Toulene Diisocyanate</td>
<td>0</td>
<td>1</td>
<td>Mattress bedding</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>UN1017 Chlorine</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>1</td>
<td>Specialty chemicals for residential and commercial building applications</td>
</tr>
</tbody>
</table>
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 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 3
4.3b – Our company produced materials using purchased TIH chemicals.

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.

| Premium paid (percentage difference) to ship TIH products compared to non-TIH products |
|---------------------------------|-------------------|
| **Average**                     | 22.1%             |
| **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%

<table>
<thead>
<tr>
<th>Item response</th>
<th>Class I Railroads (% yes)</th>
<th>Short line Railroads (% yes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liability indemnification requirements</td>
<td>61%</td>
<td>21%</td>
</tr>
<tr>
<td>Requirements for TIH train operations such as dedicated train, speed limits</td>
<td>17%</td>
<td>27%</td>
</tr>
<tr>
<td>Other tariff provisions</td>
<td>43%</td>
<td>28%</td>
</tr>
</tbody>
</table>

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 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 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.
ACC Rail Issues Survey

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%

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

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

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 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.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much more did you pay for rail service to/from your captive production facilities?</td>
<td></td>
</tr>
</tbody>
</table>
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.

...
ACC Rail Issues Survey

- 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.”

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6 Has captivity (and associated rail rates and service problems) hurt your company’s ability to export?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.7 Has captivity (and associated rail rates and service problems) hurt your company’s ability to meet customer demand?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.8 Has captivity (and associated rail rates and service problems) hindered your company from making domestic investments?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.9 Has captivity (and associated rail rates and service problems) fostered your company’s decision to increase investment outside the US?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

4 – TIP 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.

<table>
<thead>
<tr>
<th>TIH Chemical</th>
<th>Did your company produce this chemical?</th>
<th>Did your company ship out this chemical by rail?</th>
<th>About how much of the outbound rail transportation of this product was captive? (Enter %)</th>
<th>What were the typical end uses of the TIH products your company shipped by rail?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anhydrous Ammonia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethylene Oxide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrogen Fluoride</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl Mercaptan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>TIH Chemical</th>
<th>Did your company receive this chemical by rail?</th>
<th>About how much of the inbound rail transportation of this product was captive?</th>
<th>What were the typical end uses of the TIH products your company received by rail?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anhydrous Ammonia</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 4.3c Please provide the information requested for any additional TIH chemicals you produced.

<table>
<thead>
<tr>
<th>TIH Chemical</th>
<th>What is the name of the chemical?</th>
<th>Did your company produce this chemical?</th>
<th>Did your company ship out this chemical by rail?</th>
<th>About how much of the outbound rail transportation of this product was captive?</th>
<th>What were the typical end uses of the TIH products your company shipped by rail?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>TIH Chemical</th>
<th>What is the name of the chemical?</th>
<th>Did your company receive this chemical by rail?</th>
<th>About how much of the inbound rail transportation of this product was captive?</th>
<th>What were the typical end uses of the TIH products your company received by rail?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>%:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much more did you pay for rail service to ship TIH chemicals (compared to rates for non-TIH chemicals)?</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Class I Railroads (Yes, No)</th>
<th>Short line Railroads (Yes, No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liability indemnification requirements</td>
<td></td>
</tr>
<tr>
<td>Requirements for TIH train operations such as dedicated train, speed limits</td>
<td></td>
</tr>
<tr>
<td>Other TIH tariff provisions</td>
<td></td>
</tr>
</tbody>
</table>

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).

<table>
<thead>
<tr>
<th>Question</th>
<th>Inbound Rail Transportation (Yes, No)</th>
<th>Outbound Rail Transportation (Yes, No)</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.8</td>
<td>Has your company been confronted with a railroad’s refusal to transport TIH materials in intermodal rail service?</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>4.9</td>
<td>Has your company had routings for TIH materials altered to account for security or safety concerns?</td>
<td>[ ]</td>
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<td>4.9a</td>
<td>Did any routing changes for TIH materials preclude your company from reaching a customer?</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>4.9b</td>
<td>Were routing changes for TIH materials discussed with your company in advance?</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

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