

Transportation Security Guidelines for the U.S. Chemical Industry

American Chemistry Council
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The Chlorine Institute, Inc.
Compressed Gas Association
National Association of Chemical Distributors



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SECTION 1

INTRODUCTION

Attention to security is a natural corollary to the chemical industry's safety culture. Security efforts, like safety efforts, protect the community and employees while keeping the transportation of hazardous materials operational. By reducing the risk of a wide range of threats to the transportation of hazardous materials, security measures can serve to enhance the goal of the safe transportation of hazardous materials.

Concern about terrorism, sabotage, and industrial espionage gives managers of hazardous materials transportation even more reason to attend to the security of their transported products. The Site Security Guidelines (SSG) developed by the American Chemistry Council, The Chlorine Institute, and the Synthetic Organic Chemical Manufacturers Association address many transportation functions that occur at or within the boundaries of fixed chemical sites. As a consequence, those seeking guidance regarding chemical transportation security are encouraged to review and consider those guidelines. To obtain a copy of the guidelines, visit www.americanchemistry.com. This document is intended to build on, but not replace, the SSG. This guidance document outlines some elements of security programs and suggests security practices managers could consider and tailor to their company's specific transportation needs. This was done in part by building on the SSG, the Responsible Care® Distribution and Product Stewardship Codes, various implementation aids developed to augment the Distribution Code and the National Association of Chemical Distributors' (NACD) Responsible Distribution ProcessSM (RDP).

A. Audience and Objectives

This guidance is written for transportation specialists, plant managers, and others who have been given responsibility for the safe and secure transportation of their products and raw materials. The purpose of this guidance is to address security considerations during transportation and to reduce the risk of harm posed by the distribution of hazardous materials to the general public, carriers, distributors, contractors and chemical industry employees, and to the environment. Section 3 of this guidance lists tools and resources that may prove useful when assessing security issues.

B. Scope

This guidance addresses security considerations that are relevant to the transportation of hazardous materials. This guidance generally applies to all modes of transportation (highway, rail, marine, air, and pipeline) and to the shipments of all hazardous materials, including chemical waste.

Analysis of security threats, vulnerabilities, and consequences builds on current industry activities taking place through the implementation of the Responsible Care[®] Distribution Code and the Responsible Distribution ProcessSM. For example, Distribution Code activities call for evaluating chemical distribution risks and provide a framework to implement risk reduction measures, while this document looks at these same items from a security perspective.

The implementation of the guidance will vary according to the chemical being distributed, the mode and route of transportation, the activity involved, and the current practices of the company. This guidance does not attempt to provide an all-inclusive list of transportation security considerations for chemical companies, but does provide examples of types of activities companies may wish to pursue in evaluating and implementing transportation security measures. Furthermore, it is important that companies coordinate and communicate security procedures with their carriers and others involved in the safe and secure transportation of their products.

Chemical transportation encompasses activities that take place both inside and outside of chemical facility gates. For information on fixed facility security refer to the American Chemistry Council, Chlorine Institute, and Synthetic Organic Chemical Manufacturers Association's "Site Security Guidelines for the U.S. Chemical Industry."

C. Benefits of a Chemical Distribution Security Effort

By investing resources in security efforts, managers can help their companies enhance safe and secure hazardous materials transportation. Maintaining good security protects employees, the environment, and the community; provides operations integrity and effectiveness; improves relationships with local authorities; and provides a mechanism for personnel control and accounting in the event of an emergency.

D. Sensitive Information

Given that some of the material generated as part of security assessment efforts can be extremely sensitive, care should be taken to ensure that appropriate precautions are taken to protect the information. This could include items like restricted distribution of the information, secure e-mail, secure phone conferences, etc.

SECTION 2

RISK-BASED TRANSPORTATION SECURITY ASSESSMENT

Risk management is the key to an effective transportation security program, and is not a new concept for the chemical industry. Since 1990, the Responsible Care® Distribution Code of Management Practices has called for each American Chemistry Council member and each Responsible Care® Partner to have an ongoing chemical distribution risk management system. Since then other associations have adopted similar initiatives (e.g. the National Association of Distributors' Responsible Distribution ProcessSM). Various tools have been developed to address transportation risk management, and the concepts contained in those tools can be extended to transportation security issues, including threats posed by deliberate acts of sabotage and terrorism against products while in transportation.

Since chemical companies routinely perform many different evaluations and assessments, this guidance attempts to build on those existing practices to provide a tiered approach to risk-based assessment. A tiered, risk-based approach is the most effective and efficient way to evaluate, identify and prioritize potential security threats. A tiered approach starts with simple evaluation techniques, usually qualitative in nature, and identifies areas in which more information would be useful to reach a risk-based conclusion. A tiered approach also helps identify the proper resources that should be directed to transportation security based on the identified threat level.

Distribution risk management programs can be divided into two primary components:

- Risk Assessment – evaluation of chemical distribution risks; and
- Risk Reduction – identification, development and implementation of risk reduction measures that are appropriate for the level of risk.

The transportation security guidance contained in this document is based on a seven-step process that addresses both components. This process describes one way companies could perform a risk-based transportation security assessment. Many practices performed by companies on a regular basis could easily be incorporated into this approach. This is not a prescriptive approach; instead, it is a suggested flow of thought and information. It is entirely conceivable that one or more steps would not apply based on a company's existing programs.

It is up to the assessor to use professional judgment and determine the appropriate areas to be addressed. The process includes:

1. Chemical listing
2. Chemical hazard ranking
3. Exposure ranking
4. Prioritizing risks
5. Conducting risk reviews
6. Developing and implementing risk reduction alternatives and preventative measures
7. Updating the process

Steps 1-4 relate to shippers evaluating their activities in terms of chemical hazard and exposure potential to prioritize areas for more detailed security risk reviews. Steps 5-7 relate to outcomes based on the security risk reviews. These steps will be discussed in detail in the sections that follow.

Step 1: Chemical Listing

To begin the process, the shipper should compile a list of transported chemicals for evaluation.

Step 2: Chemical Hazard Ranking

Once the list is completed, a hazard ranking process can be used to identify and rank those chemicals that may have the potential, due to their inherent nature, to adversely affect people and the environment, or be prone to deliberate attacks or acts of sabotage.

The approach to chemical hazard ranking can be as fundamental as using existing classification systems such as those established by the U.S. Department of Transportation (see Title 49 Code of Federal Regulations, Part 173.2(a); in particular, Table 1 in 49 CFR 172.504 may be an appropriate starting place). Other ranking systems can be developed based upon multiple factors such as:

- Flammability
- Explosivity
- Toxicity
- Asphyxiant
- Vapor Pressure
- Reactivity
- Corrosivity

Potential diversion and misuses of products, as weapons, or in chemical or biological warfare agents, should also be considered. Special attention may also be given to highly hazardous products, e.g. materials that are regulated as poison inhalation hazards, flammables or explosives.

The purpose of this process is to facilitate a relative hazard ranking, which can be as simple as sorting chemicals into low, medium and high hazard groups.

Step 3: Exposure Ranking

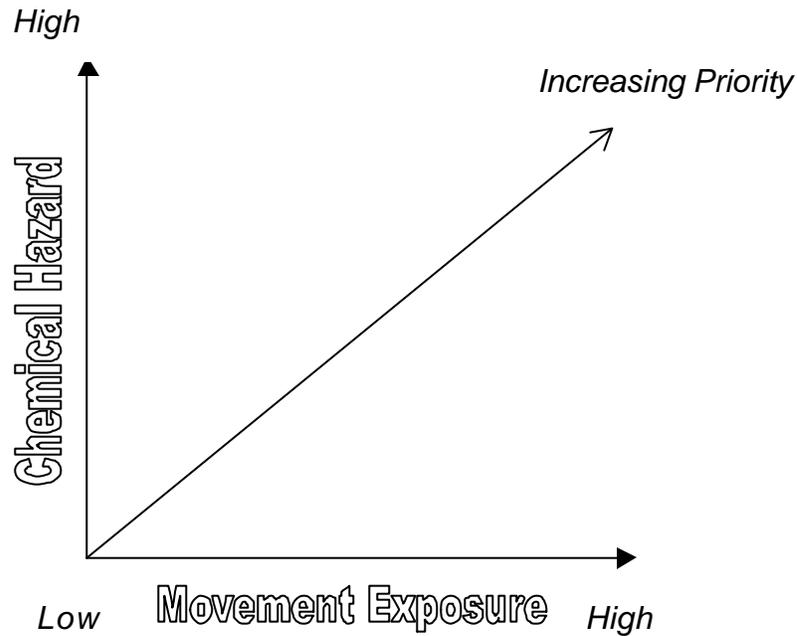
This next step is to consider and rank the exposure potential of product movements to the public and the environment, focusing particularly on those shipments that may be prone to deliberate acts of sabotage or terrorism. Factors that may be considered, singly, or in combination, in the ranking include:

- Predictability of shipments
- Proximity to public events
- Chemical volume per shipment
- Population centers traversed
- Bulk vs. non-bulk
- Proximity to very high population densities
- Proximity to significant landmarks
- Number of trips
- Trip distance
- Environmental considerations
- Placarded vs. non-placarded loads

It is usually not necessary to develop considerable detail in this step. As with the hazard ranking (Step 2), the goal is to establish a simple relative ranking of exposure potential.

Step 4: Prioritizing Security Risk

Once the chemical hazard ranking from Step 2 and the exposure ranking from Step 3 are complete, they can be used to prioritize security risk reviews. The following diagram illustrates a two-axes system designed to consider the two rankings.



Risk review priorities can be determined based on hazard and exposure, as illustrated above.

Another practical way of prioritizing risk reviews would be to divide the two axes into categories:

Chemical Hazard

HI	3	2	1
MED	4	3	2
LO	5	4	3
	LO	MEDIUM	HIGH

Movement Exposure

Note: Numbers in the grids suggest the priorities of the reviews with 1 representing the highest and 5 representing the lowest. Based upon the type of chemical, professional judgment should be used to determine if some chemicals that rank as a low priority may warrant higher priority considerations, due to extenuating circumstances.

In setting priorities for risk reviews, the frequency of future reviews should also be considered, with the higher priority categories receiving reviews more often. Companies are encouraged to use these guidelines to develop and implement a program of risk reviews that are performed on a regular basis (see Step 7, Updating Risk Management Processes).

Step 5: Conducting Security Risk Reviews

The objective of risk reviews is to better anticipate and ultimately prevent incidents that have the potential to cause damage to physical assets, personnel, the public, or the environment. The prioritization steps covered in the previous section help to narrow the focus to those chemicals and movements that are of the greatest concern. The risk reviews themselves involve more detailed assessments of the hazards and exposure potential, and consider the vulnerability of shipments to significant events. They serve to collect and evaluate information on current risk control and security measures, and are used as the basis for development of risk reduction alternatives.

Risk reviews are generally focused on current activities and practices. Questions asked during security risk reviews could include:

- What are we doing now?
- What could go wrong?
- Are there hot-spots of concern?
- What could we do differently?

A security risk review will benefit from a multi-disciplinary team, since expertise in several different areas is usually required. As an example, the team composition might include knowledgeable representatives from manufacturing/technology, distribution safety, logistics, equipment design, emergency response and security.

Security risk reviews generally include the following types of activities:

- Hazard Assessment
- Exposure Assessment
- Threat assessment
- Vulnerability assessment

Hazard Assessment

This activity develops a greater understanding of the potential impact that might result from an incident while the product is in distribution. This includes not only the hazardous properties of the material itself, but also the shipment characteristics. Examples to consider may include:

- Poison Inhalation hazard
- Other Inhalation hazards (asphyxiant)
- Explosivity or Reactivity
- Flammability
- Vapor cloud potential
- Drinking water contamination
- Environmental damage potential
- Any unique hazards
- Container volume
- Container content pressure
- Container content temperature
- Any unique conditions
- Attractiveness of chemical (public perception/fear factor)
- Acute dermal contact hazards
- Vapor pressure and density

Estimates of possible impact areas under different release scenarios (from published sources of dispersion modeling) may also be helpful in this assessment.

Exposure Assessment

This activity evaluates the degree of potential exposure to incidents, considering factors that might make certain shipments more attractive targets, such as:

- Number of containers (e.g., tank cars)
- Volume shipped per shipment
- Number of trips
- Predictability of shipments
- Number and size of population centers along the route
- Very dense population areas along the route (“hot-spots”)
- Number of municipal water supply reservoirs along the route
- Proximity to landmarks
- Proximity to public venues
- Storage in transit (rail yards, leased track)

This list is not all-inclusive. Consideration of other factors that may impact exposure and security risk should also be included.

Threat Assessment

The following is a partial list of threats and events that a transportation specialist may take into consideration:

- Attack on physical assets (examples could include the container, infrastructure, physical facilities such as terminals, storage yards, transportation power unit etc.)
- Theft (including hijacking)
- Product contamination/Product tampering
- Container tampering

Additionally, while not specifically directed toward the chemical or container, the following threats should be considered in terms of possible impacts on the security of the shipments being reviewed.

- Attack/breach of information systems and technology (including access to and/or destruction of confidential or critical data)
- Disruption of communication systems
- Disruption of the transportation process

Vulnerability Assessment

This activity considers characteristics of the shipments that may cause them to be more or less vulnerable to events identified in the threat assessment. Examples include:

- Degree of attendance to shipment in transit
- Degree of attendance to shipment in temporary storage (including leased track)
- Degree of attendance and access to shipment at pickup and delivery points
- Ease of access to shipment by unauthorized persons
- Equipment design
- Special equipment used (e.g., tamper resistant fittings)
- Special procedures or controls employed
- Special training completed
- Communication mechanisms **between** carrier, shipper and customer
- Security trends for mode, carrier or route used
- Security processes of carrier, customer **and** others involved in the transportation of products
- Ease of ability to change routes (mobility)
- Mode-specific vulnerabilities
- Ability to mitigate consequences if an event occurs
- Any intelligence information obtained

Step 6: Developing and Implementing Risk Reduction and Preventative Measures and Alternatives

Once the security risk review is complete, the next logical step is to consider how to reduce the risks, where deemed necessary. Several alternatives for possible risk reduction and development of preventative measures include:

- Collaboration
- Communication
- Management Issues
- Employee Training and Awareness
- Compliance
- Carrier Safety
- Mode/Route Selection
- Emergency Preparedness and Crisis Communication
- Customers

These alternatives are detailed below. While they are organized into specific categories, it should be understood that many of the alternatives overlap.

Shippers should consider the outcome of the risk-based transportation security assessment, as well as their current security practices, operations and resources, when choosing which of these preventative measures and alternatives should be implemented.

Please note that while these are written for chemical shippers, they are also useful security considerations for all those involved with the transport of chemicals.

Collaboration

Communication and coordination with law enforcement agencies: Shippers should consider establishing partnerships with local law enforcement officials, emergency responders, and other public safety agencies along selected transportation routes. Through these relationships shippers can more easily learn of threats, trends, and successful and unsuccessful security measures. These partnerships can be accomplished using outreach activities, boosting relationships, and utilizing available programs such as TransCAER[®] (Transportation Community Awareness and Emergency Response).

Communication

Effective communication should be established between the shippers, carriers, customers and others to help improve transportation security before an incident occurs. Communication topics related to security could include:

Communication mechanisms: Carriers, shippers and consignees should have a process in place to communicate information on events, patterns, technologies, security plans, modifications, discrepancies such as improper bills of lading and identification, etc. These mechanisms could include fax machine, cell phone, satellite phone, etc. Consistent communication of problems, such as tampering with security seals or equipment, will allow for the identification of commonalities and trends.

Tampering: Consider developing procedures that will help the customer determine whether the product and container have arrived without tampering. This could include using number seals on valves and closures and matching these against documentation prepared by the shipper.

Receiving products: Consider having a system where the customer alerts the shipper if the product is not received when expected. When products arrive, have the customer check the carrier's identification with the shipping documents received from the shipper and look for discrepancies such as improper bills of lading and identification.

Carrier expertise: Shippers should keep in mind that carriers interface with multiple shippers and customers and may be able to provide useful information not normally available to a single shipper or customer.

Management Issues

Shippers should assess their internal situations and practices to enhance the secure transportation of hazardous materials. Considerations include:

Technology: Shippers may explore technological solutions to enhance security. These may include communication systems, tracking systems, inventory controls, sensors, and vehicle access control systems.

Event monitoring, reporting, and analysis: Keep records of security incidents. Reviewing these incidents can help identify trends and potential vulnerabilities.

Internal communication: Have a communication mechanism in place to communicate events, facts, trends, etc. internally. These mechanisms may include fax machine, cell phone, satellite phone, etc. This can also be accomplished by developing a security information network for all company employees including local, national, and international employees at all levels within the organization. Bulletin boards, network communications, e-mail, intranet sites, etc. are some of the communications tools available. Because Internet communications may be accessed by others, consideration should be given to communicating sensitive information by other means or by secure Internet connections.

Delivery and pick up: Ensure that appropriate levels of security exist around all entrances and exits involving the transportation of hazardous materials, including back gates, 24 hours a day/7 days a week. As appropriate, monitor transportation equipment entering and leaving facilities.

Shipment securement: The proper loading, unloading, and securement of transportation containers (including include packages, cylinders, truck trailers, railcars, barges, deep-sea containers and vessels) is a critical measure for the shipper and carrier to perform and enhance the safe and secure transport of hazardous materials.

The proper securement of transported products should be addressed during loading and unloading procedures. One example is to include minimum securement requirements in checklists as part of the loading and unloading procedures. Pre-inspection procedures to determine if proper loading, unloading, and securement requirements were followed is also important. They should also be updated with respect to any changes and interpretation of new and existing transportation regulations, legislation, and industry standards.

Shippers should also consider the need for tamper-resistant or tamper-evident seals and locks on cargo compartment openings.

Accessibility: Assess the accessibility of the public to the plant and transportation loading and unloading areas. Consider methods to monitor these areas. Examples include the use of a video surveillance system and frequent patrols.

Employee Training and Awareness

It is critical to ensure that employees are properly trained and aware of security measures. This includes:

Security policy: Management should support security policies. It is important that employees see security as critical to the company's mission.

Security awareness program: Implement an internal security awareness program for the distribution of hazardous materials. Employees should be encouraged to report incidents or events that occur in transportation. Implement routine security inspections using appropriate materials and subsequent reporting mechanisms.

Communication plan: Establish an effective communications plan to keep employees aware of security issues. The plan should be updated, modified, and communicated with all employees within the company and industry as appropriate.

Compliance

The safe transportation of hazardous materials demands thorough and continuous knowledge of new and existing transportation regulations, legislation, and industry standards. This includes:

Knowledge of new and existing regulations for shippers, carriers and others: Shippers should have a process for monitoring and implementing changes and interpretations of new and existing transportation regulations, legislation, and appropriate industry standards. Applicable rules and regulations should be identified and implemented as they are promulgated. This can be done through a specific group in the company, specialized consultants, membership in trade associations, etc. Suggestions for assessing training, implementation, and etc. can be found in the Responsible Care® Distribution Code of Management Practices and in the NACD RDP®.

Shippers should have a process to evaluate whether the carrier is up-to-date on changes and interpretation of new and existing transportation security regulations, legislation, and industry standards. Carriers may stay up to date on changes and interpretations by utilizing site staff, specialized consultants, membership in trade associations, etc.

Shippers and receivers of hazardous material must ensure that all employees that offer or receive hazardous materials for transportation receive all required training.

Packaging and loading: Based on regulations and the nature of the product (and on hazard class if applicable), proper packaging should be used. In addition, items should be loaded as called for by current regulations, with sensitivity to the compatibility of the different types of chemicals being transported together.

Hazard Communication: It is critical that all shipping papers, labels, placards, markings and other hazard communication information be correct, and that this is provided to the appropriate parties.

Company requirements and training: Have a process to ensure that all company and contract employees as appropriate who perform distribution activities receive the company's security training and/or are advised on any new security requirements.

Carrier Safety

Open, effective, and meaningful dialog between the shipper and carrier is “a must” to enhance the secure transportation of hazardous materials. Shippers should consider the following when working with carriers:

Carrier qualification: Shippers should implement a process for qualifying carriers of all modes and types that the company uses to transport hazardous materials. Carrier safety ratings, assessments and/or safety surveys may be used. (The Responsible Care[®] Distribution Code Carrier Safety Protocols may be used for this purpose.) The shipper may also request that information relating to security measures the carrier has implemented be shared or results communicated in some manner.

Carrier employee hiring and review practices: Verify that the carrier implements an appropriate employee hiring and review process, including background checks as appropriate. This can include background checks using state departments of motor vehicles for records of traffic violations among other sources. This may also include verification of the applicant's social security number, previous employment history, and CDL licenses. Shippers should note that, in some cases, the ability of a trucking company to perform comprehensive background checks of drivers (and driver applicants) might be restricted by state and Federal "privacy" laws. For example, access to criminal record databases is sometimes limited. Some states are more sophisticated than others in providing detailed records of traffic and motor vehicle violations. In other cases, the motor carrier employer might be precluded from providing copies of an employee's photo image, date of birth, social security number, etc. In these cases, the shipper and carrier may consider some alternative method to confirm that the driver that arrives at the plant site is the proper carrier employee.

Carrier evaluation: Determine whether the carrier has the appropriate route, training, programs, and checks in place for the secure transportation of hazardous materials.

Consider the security mechanisms available to the carrier. The carrier and shipper may coordinate to develop the appropriate security precautions.

Carrier and product location: The shipper and carrier should work out a way to exchange information on the location of the carrier and product at the appropriate times during the distribution cycle. This open communication system could include the

designation of a contact person for both the shipper and carrier. This may also include access to a means of communication 24 hours a day/7days a week. Consideration should be given to the fact that, due to delivery schedules and federal hours of service limitations, the driver who picks up a load may not be the same driver who delivers the load to the consignee. It is important that shippers communicate with the carrier for guidance on this matter.

Shippers, carriers and receivers should work together so that any discrepancies in expected delivery times, based upon the normal operating procedures of the carrier, are communicated. This can alert those involved to the possibility of a security issue. Shippers and carriers should also discuss security on leased track

Product security en-route: Shippers should coordinate with the carrier and determine if the appropriate level of security is applied, and that the carrier checks for continued proper securement when stopped en-route. Security measures may include the use of team drivers or avoiding layovers of certain products as defined by vulnerability. If a layover must occur, determine if the carrier is capable of holding the material in a secure area and takes security precautions such as securing and locking the vehicle when unattended (e.g. a carrier owned terminal location could be used).

Mode/Route Selection

Shippers should be aware and informed of designated routes for hazardous materials transportation. Shippers may also want to perform a route and risk analysis on hazardous materials and work with carriers to determine routing. Some considerations when selecting mode of transportation and routes include:

Assess modes: Assess the various modes, combination of modes, and options within those modes available for the transportation of the chemical. This may be done during the vulnerability assessment. Keep in mind that the ability to change routes is dependant upon the mode of transportation chosen.

Assess routes: Shippers and carriers should work together to identify preferred and alternative routing, including acceptable deviations. Planning in advance for mutually agreeable alternate routing is a very important security measure. Also, shippers should know that information regarding designated routes may be available through state transportation agencies.

When assessing mode or route changes, risk should be considered. Such assessments should consider factors other than solely population density, such as number of trips (for mode changes), road/track type and quality, carrier training, emergency response capabilities, potential increased handling and transit (exposure) time, etc., so that risk due to normal operations is not inadvertently increased. The degree of changes to mode or routing should depend on the vulnerability assessment of the product, as well as the perceived threat level. Shippers and carriers should review and communicate routing information and preferences.

Emergency Preparedness and Crisis Management

Emergency response and crisis management measures are critical to the safe and secure transportation of hazardous materials. Some considerations when implementing these measures include:

Emergency response plan: Develop an emergency response plan that fits the needs of the facility, nature of the product, transportation mode, offerors and receivers of hazardous materials for transportation, and the carriers.

Shippers should assess and understand the likely events possible for product and mode when shipping the product. Shippers should have knowledge of the mitigation process and needed resources. In the event of an emergency, pre-established emergency response plans to mitigate the likely events as determined by the vulnerability risk assessment should be in place.

Shippers and carriers should also have emergency response resources available to respond to events. Emergency response systems can consist of plans and procedures, internal teams, or contractors. While protection of people, property and environment are top concerns, care should be taken, where practicable, to preserve evidence that may be of use to investigations. Shippers should verify that carriers have emergency response systems in place.

Crisis communications: Implement a crisis communication system for those involved in an event (this could include company or contractor media relations, finance, legal, technical, emergency response personnel). This may include a primary and back-up means for the affected party/parties to signal for assistance and a means to quickly contact the appropriate personnel needed to manage the event.

Protections: In some cases, shippers and carriers should consider the need for security escorts, tractor & trailer anti-theft devices, and established pre-designated safe zones (restricted access, guarded areas away from population centers where cargo can be taken in the event of a crisis).

Backup systems: Shippers should develop a back-up plan in the event of loss of the services of a significant carrier. This may be useful if a carrier decides to discontinue handling/transporting hazardous material.

Shippers should assess and determine if alternative arrangements for the transportation of hazardous materials in case of an event is possible and plan accordingly. This is to enhance the safety of affected parties and the environment and to maintain the fluidity of the supply chain.

Customers

When working with customers, shippers should consider the following security items:

Be aware of suspicious activity: Those involved in hazmat transport should be aware of their surroundings and advise others as appropriate of noticed suspicious activity. This could include an approach from a new customer whose identity is not clear, customer's use of evasive responses, reluctance to explain how the product will be used, inability to provide clear answers to technical questions, request for excessive confidentiality, unusually favorable terms of agreement, etc. This could also include noticed suspicious activity upon arrival at the destination.

Service providers: Shippers should work with their customers to examine closely situations when customers choose the service provider for product pick-up and to ensure that the service provider chosen can appropriately handle the product. For truck hauls, a DOT number and state Motor Carrier Operating Authority numbers can provide safety and other information to the shipper.

Increase communications with customers: Consider having procedures where the customer can be assured the product and container have arrived without tampering. This could include the use of number seals to ensure valves and closure have not been operated.

Consider having a system where the customer alerts the shipper if the product is not received in a timely manner. Have the customer check the carrier's identification with the shipping documents received from the shipper.

Step 7: Updating Security Risk Management Processes

Effective transportation risk management should be considered a continuing process for risk reduction and security assessments. Since many of the factors involved in the overall risk management are dynamic and changing, this process should be repeated at regular intervals. In addition, as more pertinent information becomes available, it should be used to improve this process. It is suggested that higher security risk movements receive more frequent reviews.

SECTION 3

HELPFUL RESOURCES

A. Associations

American Chemistry Council
1300 Wilson Blvd.
Arlington, VA 22209
Phone: (703) 741-5000
Fax: (703) 741-6000
www.americanchemistry.com

American Waterways Operators
1600 Wilson Boulevard
Suite 1000
Arlington, VA 22209
Phone: (703) 841-9300
Fax: (703) 841-0389
www.americanwaterways.com

Association of American Railroads
50 F Street, N.W.
Washington, D.C. 20001
Phone: (202) 639-2100
Fax: (202) 639-2930
www.aar.org

CHEMTREC®
1300 Wilson Blvd.
Arlington, VA 22209
Phone: 1-800-262-8200
www.chemtrec.org

The Chlorine Institute, Inc.
2001 L Street, N.W.
Suite 506
Washington, D.C. 20036-4919
Phone: (202) 775-2790
Fax: (202) 223-7225
www.c12.com

Compressed Gas Association
4221 Walney Road
5th Floor
Chantilly, VA 20151-2923
Phone: 703-788-2700
Fax: 703-961-1831
www.cganet.com

National Tank Truck Carriers
2200 Mill Road
Alexandria, VA 22314
Phone: (703) 838-1960
Fax: (703) 684-5753
charvison@tanktruck.org

National Association of Chemical Distributors
1560 Wilson Boulevard
Suite 1250
Arlington, VA 22209
(703) 527-6223
(703) 527-7747
www.nacd.com

Synthetic Organic Chemical Manufacturers Association
1850 M Street, N.W. Suite 700
Washington, D.C. 20036
(202) 721-4100
(202) 296-1890
www.socma.com

TRANSCAER®
c/o American Chemistry Council
1300 Wilson Blvd.
Arlington, VA 22209
(703) 741-5258
(703) 741-6258
www.transcaer.org

B. Federal Agencies

United States Department of Transportation
400 7th Street, S.W.
Washington, D.C. 20590
www.dot.gov

Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, D.C. 20591
www.faa.gov

Federal Motor Carrier Safety Administration
400 7th Street, S.W.
Washington, D.C. 20590
www.fmcsa.dot.gov

Federal Railroad Administration
1120 Vermont Avenue, N.W.
Washington, D.C. 20590
www.fra.dot.gov

Research and Special Programs Administration
400 7th Street, S.W.
Washington, D.C. 20590
www.rspa.dot.gov

United States Coast Guard
2100 2nd Street, S.W.
Washington, D.C. 20593
www.uscg.mil

Federal Bureau of Investigation
935 Pennsylvania Avenue, N.W.
Washington, D.C. 20535-0001
www.fbi.gov

United States Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, D.C. 20530-0001
www.usdoj.gov

Federal Emergency Management Agency
500 C. Street S.W.
Washington, D.C. 20472-0001
www.fema.gov

These federal agencies also have state and local counterparts.

C. Publications

The following websites and publications may be helpful as companies assess their security practices:

Responsible Care[®] Items:

For more information or to obtain copies of documents, visit www.americanchemistry.com.

Responsible Care[®]: The American Chemistry Council's initiative to continuously improve environment, health and safety performance. Responsible Care[®] calls for Council members to:

- Continually improve their health, safety and environmental performance;
- Listen and respond to public concerns;
- Assist each other to achieve optimum performance; and
- Report their goals and progress to the public.

Responsible Care[®] Partnership Program

The Partnership Program provides an opportunity for those who otherwise may not be eligible for membership in American Chemistry Council to participate directly in the Responsible Care[®] initiative. Companies that take ownership or possession of chemicals and chemical-related associations are eligible for membership in the Responsible Care[®] Partnership Program.

The following protocol documents can be found at <http://www.americanchemistry.com>.

Handling and Storage: Warehouse Assessment Protocol

This document can be used to assess the safety fitness of warehouses.

Carrier Safety: Rail Carrier Assessment Protocol

This document can be used to assess the safety fitness of rail carriers.

Carrier Safety: Motor Carrier Assessment Protocol

This document can be used to assess the safety fitness of motor carriers.

Carrier Safety: Container Carrier Assessment Protocol

This document can be used to assess the safety fitness of container carriers.

Carrier Safety: Barge Carrier Assessment Protocol

This document can be used to assess the safety fitness of barge companies.

Responsible Distribution Process® Items:

The Responsible Distribution Process® (RDP) is the National Association of Chemical Distributors program to continuously improve performance in protecting health, safety, and the environment.

For more information or to obtain copies of documents, visit www.nacd.com.

Responsible Distribution Process® Implementation Guide

This is an implementation guide for the National Association of Chemical Distributor's Responsible Distribution Process®.