

**DEPARTMENT OF HOMELAND SECURITY
DEPARTMENT OF TRANSPORTATION**

**RECOMMENDED SECURITY ACTION ITEMS FOR THE
RAIL TRANSPORTATION OF TOXIC INHALATION HAZARD MATERIALS**

This document contains proposed security action items for the rail transportation of Toxic Inhalation Hazard (TIH)¹ materials. All measures are voluntary. Movement of large quantities of TIH materials by rail in proximity to population centers warrants special consideration and attention. These materials have the potential of causing significant numbers of fatalities and injuries if intentionally released in an urban environment.

These security action items have been identified by the Department of Homeland Security (DHS) and the Department of Transportation (DOT). Many of the practices described are the product of observations by DHS and DOT during high threat urban area rail corridor assessments conducted in 2005. Others are based on experience gained during review of hazardous materials transportation security plans. The security action items were developed specifically for the transportation of TIH materials by rail; however, many have relevance to other hazardous materials and other modes of transportation.

Requirements for security plans for the transportation of hazardous materials are found in 49 CFR Part 172, Subpart I. Requirements for security training are found in 49 CFR 172.704. These security action items and industry guidelines, such as the Responsible Care guidance on the transportation of TIH materials by rail, should be considered as security plans are developed, implemented, and revised.

The security action items have been divided into three categories 1) System Security; 2) Access Control; and, 3) En-route security. System security and access control refer to practices affecting the security of the railroad and its property. En-route security refers to the actual movement and handling of railcars containing TIH materials.

DOT and DHS recognize that there is no one solution that fits all locations and circumstances. These security action items allow for flexibility in implementation based upon the assessed vulnerability of a particular process or operation. Where applicable, implementation of these action items to their fullest extent practicable should be the goal of the affected property owner and operator.

¹ Under the Hazardous Materials Regulations (49 CFR 171-180), TIH materials are gases or liquids that are known or presumed on the basis of tests to be so toxic to humans as to pose a hazard to health in the event of a release during transportation. See 49 CFR 171.8, 173.115, and 173.132.

System Security Practices Affecting the Transportation of TIH Materials

1. Designate an individual with overall responsibility for hazardous materials transportation security planning, training, and implementation. This individual should report directly to an executive officer of the company. Designate a security coordinator for facilities or areas that the railroad has designated as critical to its operations. This person would have overall responsibility for security planning and countermeasure implementation at the designated facility or location.
2. Conduct exercises, at least annually, to verify the effectiveness of security plan(s).
3. Develop and conduct an audit program to independently verify that the security plan is being effectively implemented. The audit process should include a policy for record keeping of the audit and a method for management review and performance measurement.
4. Review and evaluate, at least annually, identified critical assets and infrastructure. Ensure that changes or additions to the operating environment have been properly addressed.
5. Maintain constant awareness of current threat conditions and available intelligence information. Ensure that security measures reflect current threats and vulnerabilities.
- 6. Establish liaison and regular communication with Federal, State, and local law enforcement, emergency responders, security agencies, and industry partners. Establish programs to increase the situational and domain awareness of local law enforcement at critical locations.**
7. Establish liaison and collaboration with other railroad security offices, to promote information sharing and security enhancements.
8. Continually publicize and advertise security awareness and appropriate operational security concepts to all employees at all levels of the organization.
9. Provide continual training to employees to reinforce the need to immediately report to the proper authorities suspicious persons (including trespassers), activities, or objects encountered. Immediately inform the appropriate authority of the loss or theft of company issued or owned equipment.
10. Identify options and have contracts or agreements in place to supplement the company security force under special situations by utilizing private security guards, local law enforcement officers, or other qualified persons.
11. Restrict access to controlled information, including documents and Internet-based material about schedules, routes, contents of shipments of hazardous materials, security

measures, emergency response procedures, and other sensitive information, to those with a need to know.

12. Work with local communities to develop risk based training and preparation for deployment of resources to minimize consequences of an emergency or security event.

Access Control Security Practices
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13. Post appropriate signage to identify property boundaries and areas with restricted public access. Provide a telephone number for the general public to contact in the event suspicious activity is observed. Ensure that procedures are in place for active trespasser abatement programs.
14. Require sign-in and photo identification of all contractors, vendors, and visitors to company property. Ensure contractors and vendors conduct pre-screening or background investigations of their employees.
15. Restrict access of contractors, vendors, and visitors at critical facilities. Monitor the activities of visitors while they are in or around critical facilities.
16. Require all employees to display or have immediately available appropriate photo identification while on company property. Consider utilization of additional identification measures such as magnetic strip cards, personal identification number codes, barcodes, or biometrics. Conduct spot checks of identification.
17. Implement appropriate patrols by a security force. Vary the pattern and schedule to avoid predictability. Continue patrols at night, on weekends, and holidays, and during special events. Ensure measures are increased with threat level.
18. Where appropriate, create a defensible perimeter around all or portions of infrastructure including yards, rights of way, bridges and tunnels. Where fencing is impractical, consider utilizing natural barriers (such as boulders and berms). Consider developing buffer zones extending out from fences. Keep fence line and buffer zone clear of vegetation and other obstructions. Inspect perimeter barriers regularly. At tunnel entrances and exits deploy appropriate barriers, surveillance equipment, and alarms to keep pedestrians and vehicles away.
19. Ensure bridge tender facilities on movable bridges are locked when unoccupied and disable the ability to move the bridge. Install appropriate controls to prevent unauthorized operation of moveable bridges. Ensure the security of the bridge operating location when manned and in-service.

En-route Security Practices

- 20. Identify through vulnerability and risk assessments, those locations where attacks may be most likely and where consequences may be the highest. Appropriate protective measures should be identified and implemented for these locations.**
- 21. Designate and Properly Secure Temporary Storage Locations for Loaded Tank Cars. Establish secure storage areas where TIH cars can be placed if necessary to prevent unauthorized access. These secure storage areas should provide access control by the most practicable means. The secure storage area should be located as far away as practicable from sensitive receptors, such as high density population areas. In locations where TIH tank cars are normally handled, switched, or classified, provide measures to provide for additional security and safety of the shipment.**
22. Develop a procedure and system to locate, in a timely manner, railcars transporting TIH materials. Procedures should include a process to address delayed or missing cars. The procedure and/or systems developed should be capable of providing near real-time information on the location of rail cars carrying TIH materials to DHS and DOT in case of an emergency.
23. Develop procedures or processes for determining the location of TIH tank cars in classification or storage yards and their proximity to other incompatible materials. The procedure or process should allow for the quick and timely identification of the total number, track location, and lading of TIH tank cars.
- 24. Expedite the movement of trains transporting rail cars containing TIH materials. Minimize delays in the movement of these cars at shipper and receiver facilities, in transit, and at interchanges between carriers. If practicable, provide routing of these trains to minimize stops near critical assets within high threat and/or high risk areas.**
- 25. Provide positive and secure exchange of custody of rail cars containing TIH materials at shipper and receiver facilities and at points of carrier interchange. Develop procedures to limit the period of time that TIH cars are left unattended and unmonitored.**
- 26. Minimize to all extent possible the duration of standing TIH materials. Do not leave loaded cars containing unattended in locations lacking access barriers and/or monitoring and surveillance capabilities. This includes cars standing unattended under or over road overpasses, underpasses, bridges or adjacent to critical locations.**
- 27. Conduct a security-focused inspection of all cars containing TIH materials in coordination with required safety inspections at origin and upon arrival at or departure from a yard, as well as at other locations while in transit, particularly**

those occasions where the TIH tank car has been left unattended. Inspect for signs of tampering, sabotage, attached explosives, and other suspicious items. Establish procedures and employee training for handling security problems found during inspections.

- 28. In rail yards, place cars containing TIH materials where the most practical protection can be provided against tampering and outside observation (such as in the center of the yard). Place cars in a location where a visual line-of-sight can be maintained by yard personnel.**
- 29. Provide local authorities controlled access on information on the quantities, types, and routes of TIH materials that typically move through their communities by rail.**
30. Routes should be evaluated (considering factors such as total population exposure, distance traveled, threats, condition of track, and emergency response capabilities) to identify ways to reduce system safety and security risks.

Notes

1. Items shown in **bold** should be given special emphasis in High Threat Urban Areas.
2. These security action items are intended to be employed as baseline security and are applicable at all alert levels. In times of elevated alert status, special emphasis is needed on those actions directly affecting operational security.