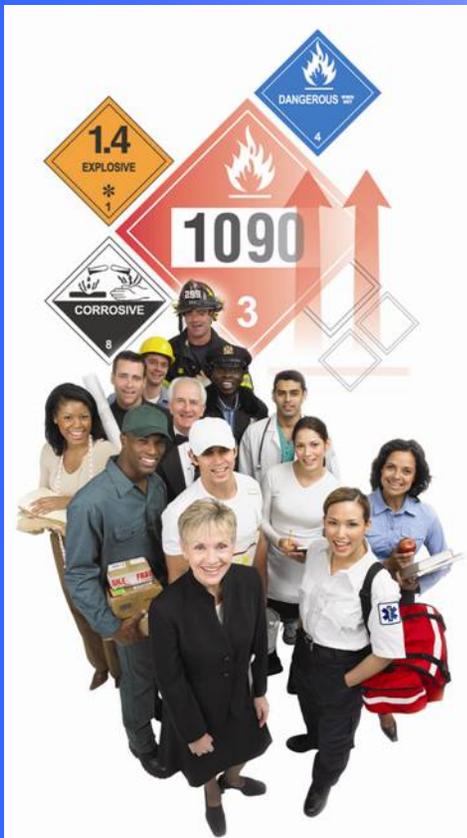




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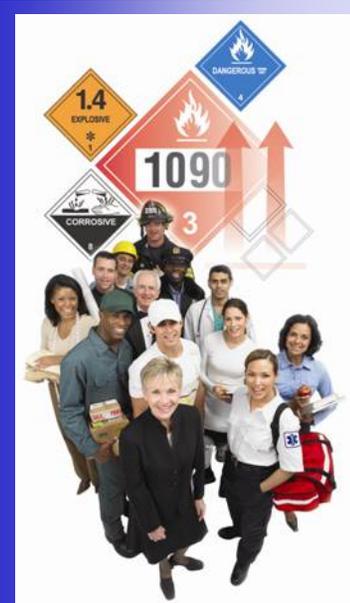


Hazardous Materials Transportation Security Requirements



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**Hazardous
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Transportation
Security
Requirements**

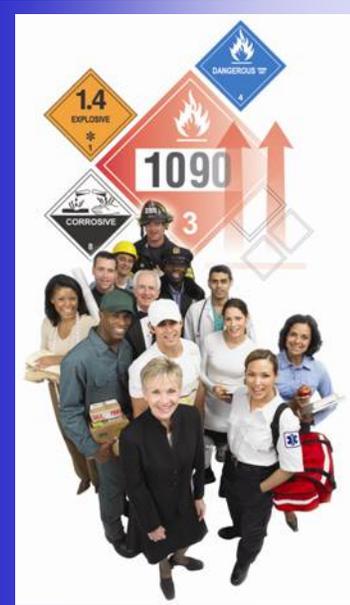
Objectives

- **Provide an overview of the security requirements found in the Hazardous Materials Regulations (HMR)**
- **Offer suggestions and guidance on how to comply with these requirements**



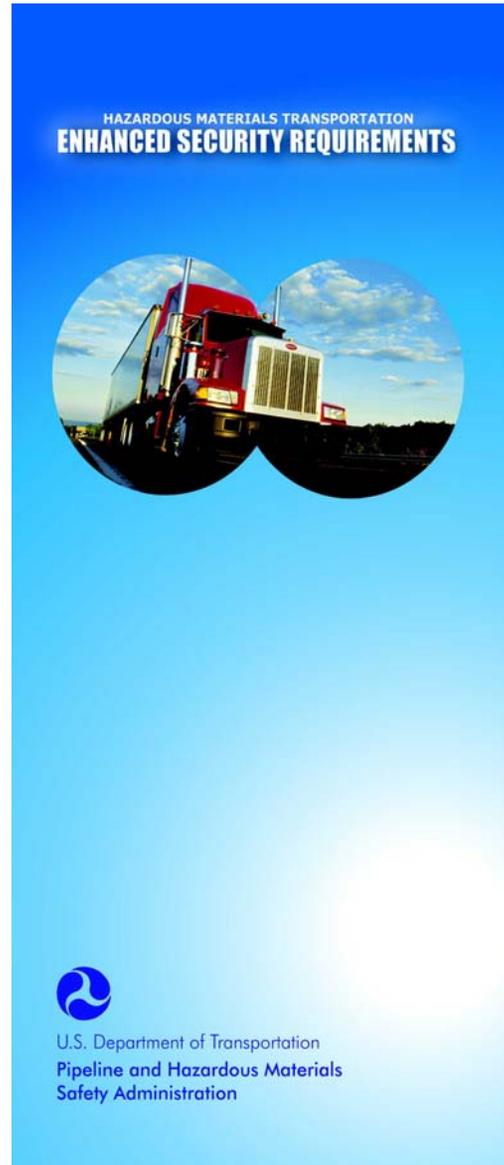
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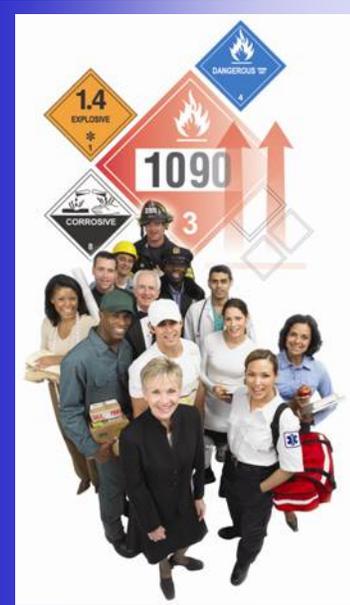
Reference Material





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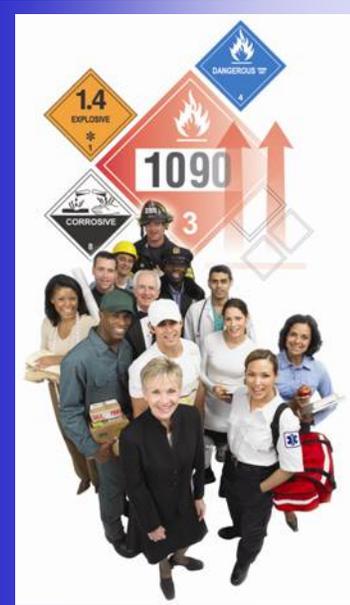
Overview of the Security Requirements

- **Security plan requirements**
- **Security awareness training**
- **In-depth security training**
- **Initial and recurrent training and record keeping**
- **Security plan administration**



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**Hazardous
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Security Plan Requirements

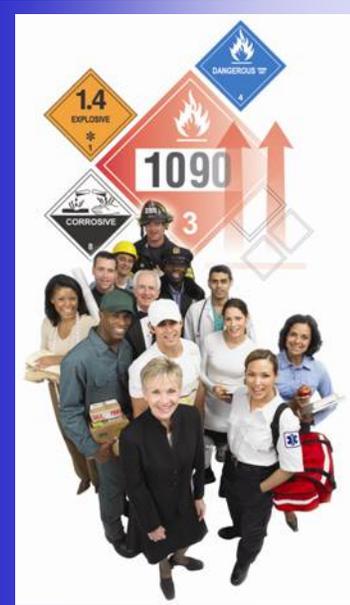
Each person who offers for transportation in commerce or transports in commerce one or more of the hazmat listed in 172.800(b)(1-7) must develop and implement a security plan.

§172.800



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**Hazardous
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Required Components of a Security Plan

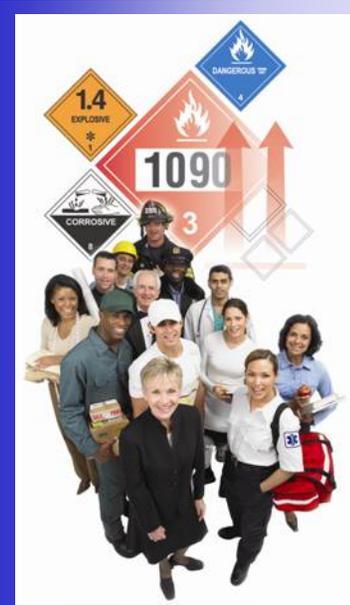
- **Assessment of possible transportation security threats and appropriate measures to address assessed threats**
- **Security plans must include the following elements:**
 - **Personnel security**
 - **Unauthorized access**
 - **En route security**

§172.802



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**Hazardous
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Required Components of a Security Plan (cont'd)

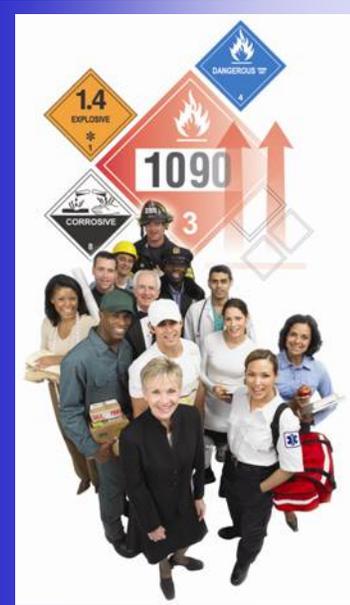
- **Security plans must be in writing**
- **Copies must be available to employees**
- **Plans must be revised and updated as needed**
- **All current copies must be maintained**

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**Hazardous
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Security Plans Approved by Other Organizations

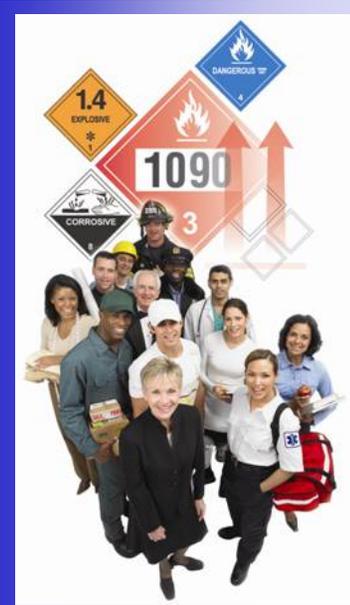
- **HM-232 permits security plans that conform to regulations or standards issued by other Federal agencies, international organizations, or industry groups**
- **Examples may include security requirements imposed by USCG, DOD, NRC, UN, IMO, or TSA**

§172.804



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**Hazardous
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Security Awareness Training

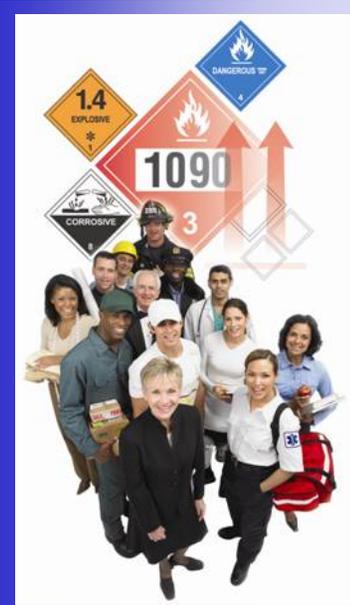
- **Hazmat employees must receive security awareness training within 90 days after employment or change in job function**
- **Recurrent training at least every three years**

§172.704(a)(4)



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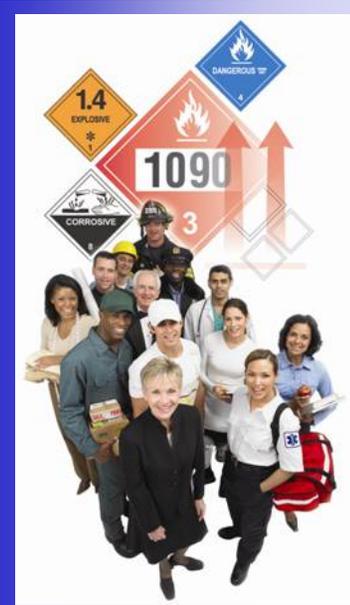
Security Awareness Training Must Include:

- **Security risks associated with hazmat transportation**
- **Methods designed to enhance hazmat transportation security**
- **How to recognize and respond to possible security threats**



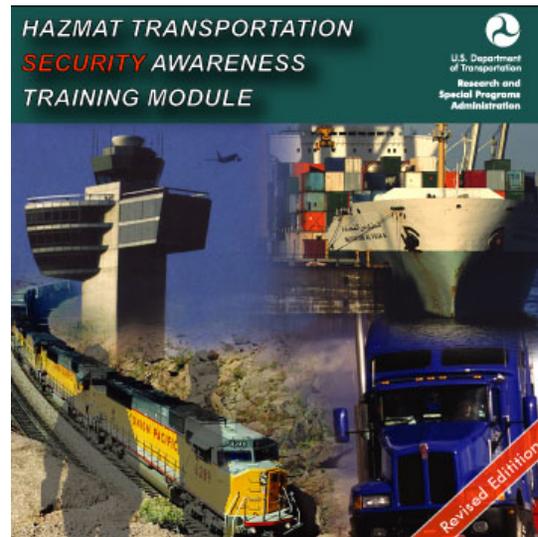
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Hazmat Transportation Security Awareness Training Module on CD-ROM

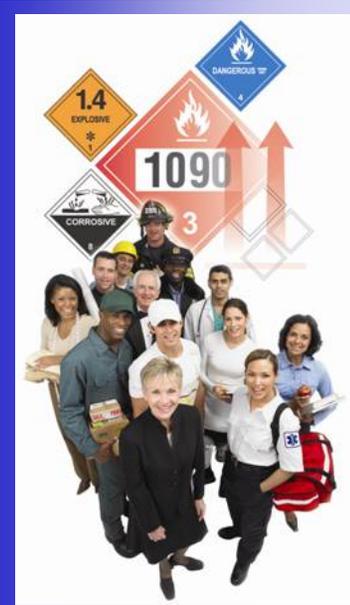


**Meets security awareness training
requirement as long as record
keeping requirements described
in 172.704(d) are followed**



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In-depth Security Training

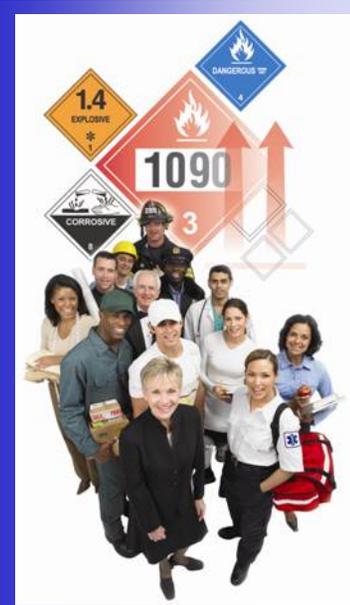
Each hazmat employee of a person required to have a security plan must be trained concerning the security plan and its implementation.

§172.704(a)(5)



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In-depth Security Training Must Include:

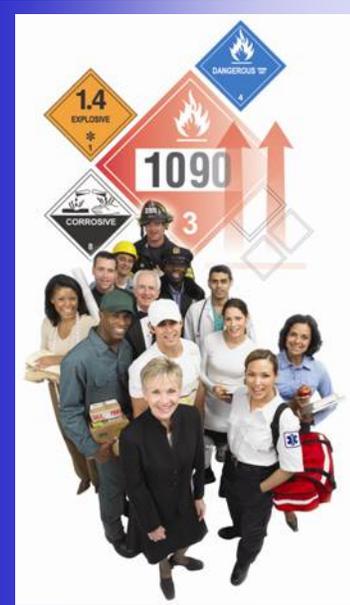
- **Company security objectives**
- **Specific security procedures**
- **Employee responsibilities**
- **Actions to take in the event of a security breach**
- **Organizational security structure**

§172.704(a)(5)



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Other Training

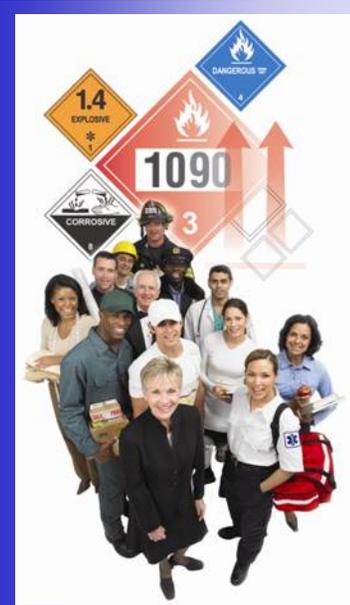
Training conducted to comply with requirements of other Federal or international agencies may be used to satisfy the requirements in the HMR.

§172.704(b)



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**Hazardous
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Initial and Recurrent Training

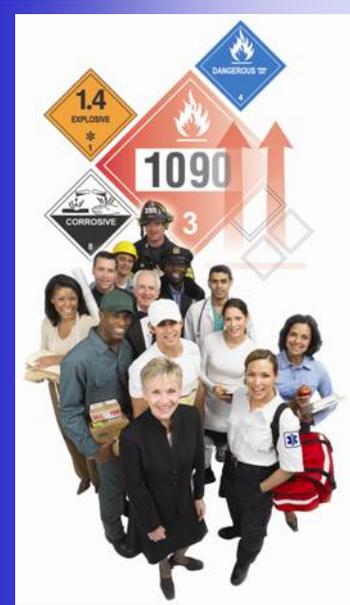
- **Initial training - Training must be complete within 90 days after employment or change in job function**
- **Recurrent training at least every three years**

§172.704(c)



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Recordkeeping

- **A training record must be kept for each hazmat employee**
- **Record must include:**
 - Employees name
 - Most recent completion date of training
 - Description, copy, or location of training materials used
 - Name and address of person providing the training
 - Certification of employee training

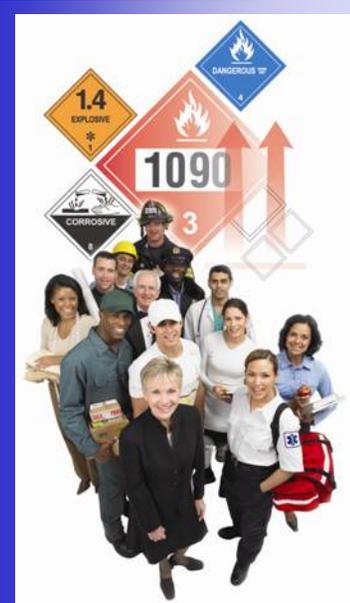


§172.704(d)



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Security Plan Administration Requirements

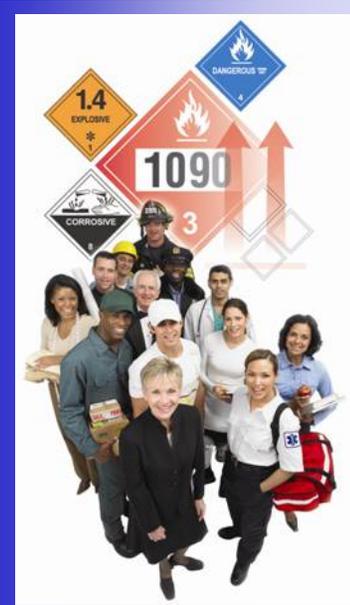
- **Plans must be in writing and retained as long as it remains in effect**
- **Copies, or portions of plans, must be available to personnel consistent with their need to know**
- **Revised/updated as necessary reflecting changing circumstances**
- **When updated, all copies must be current as of the date of the latest revision**

§172.802(b)



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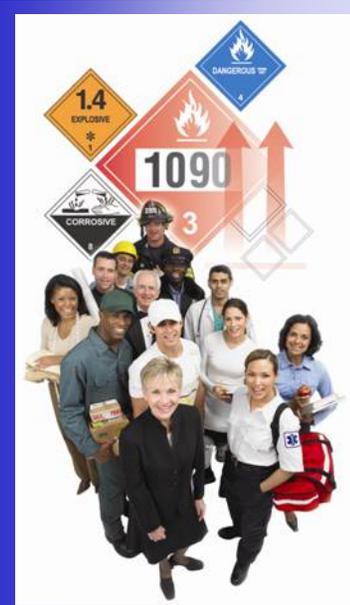
Overview of Suggestions and Guidance

- **Hazmat security planning**
 - Four step process
 - Performance standards vs. security measures
- **Security threat assessment steps**
- **Suggested security measures**
- **Graduated security planning**
- **Example of graduated security planning**
- **Security plan check list**



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Hazmat Security Planning

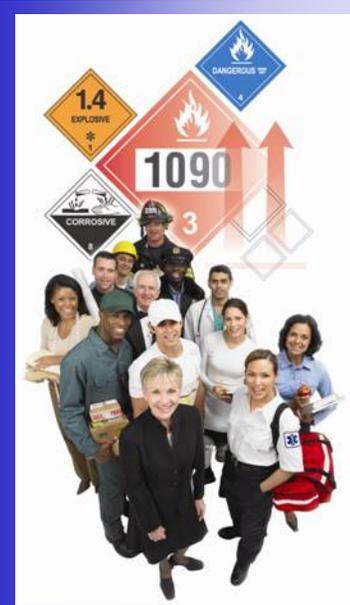
Four step process:

- **Assess possible security risks**
- **Develop *performance standards* and identify *security measures***
- **Develop and implement a security plan**
- **Administration and training**



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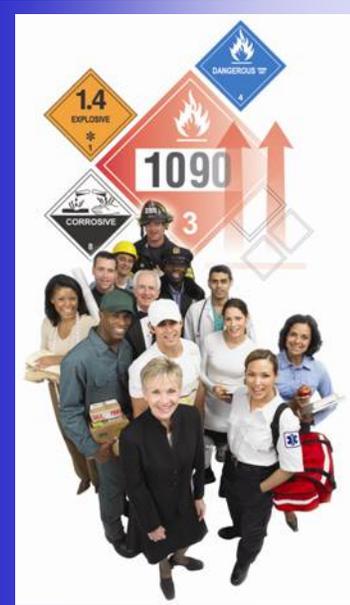
Hazmat Security Planning

- **Performance Standards**
 - **Courses of action**
 - **Related to threats**
 - **Define desired outcome**
- **Security Measures**
 - **Specific actions to achieve performance standards**



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Security Threat Assessment Steps

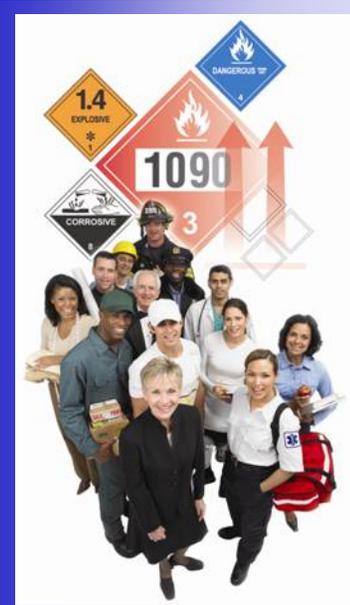
- 1. Scoping**
- 2. Knowledge of operations**
- 3. Assessment**
- 4. Strategy**
- 5. Action**
- 6. Verification**
- 7. Evaluation**

Risk assessment guidance is available on-line at:
<http://hazmat.dot.gov/riskmgmt/rmsef/rmsef.htm>



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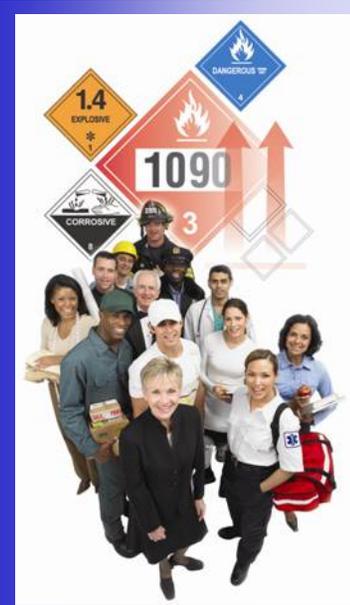
Step 1. Scoping

- **Determine scope of operations that need security risk management**
- **Characterize your hazmat transportation operations**
- **Identify industry partners**
- **Determine vulnerabilities**



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Step 2. Knowledge of Operations

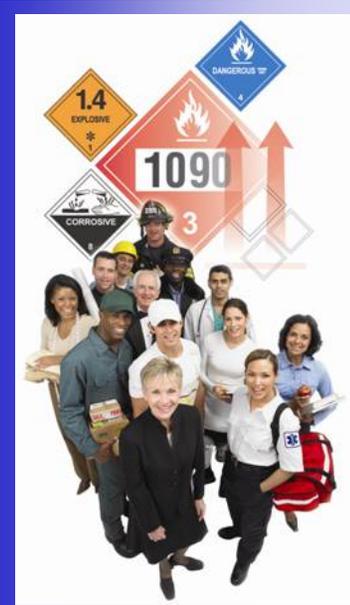
**Collect detailed information about
transportation operations**

- **Quantities of materials transported**
- **Baseline security programs**
- **Current security procedures**
- **Related safety programs**



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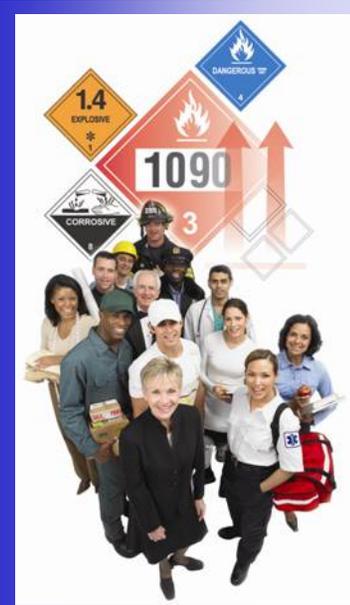
Step 3. Assessment

- **Analyze security threats**
- **Assess baseline programs**
- **Identify security threat control points**
- **Assessment may be based on:**
 - Impressions of experienced staff, brainstorming, or surveys
 - Formal, rigorous hazard assessment techniques



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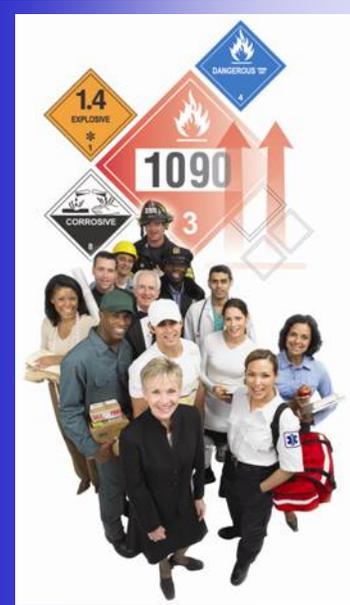
Step 3. Assessment (Cont'd)

- **“Assessment of transportation security threats” is *not* “risk assessment”**
- **Security is different from safety**



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Hazmat Safety vs. Security

Similarities

- **Anticipate causes**
- **Avoid consequences**

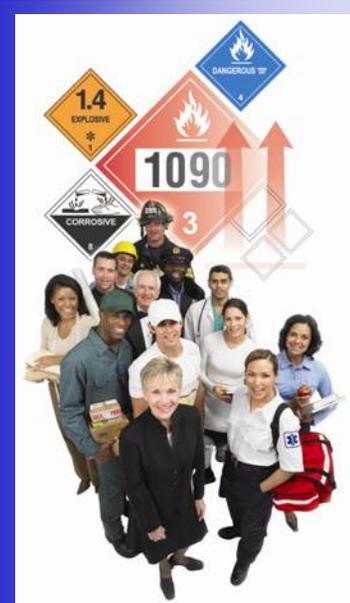
Differences

- **Accidents can be statistically modeled**
– **Intent is non-linear (not statistical)**
- **Frequent small vs. infrequent massive**
- **Safety protocols seek to prevent**
- **Security measures seek to reduce**



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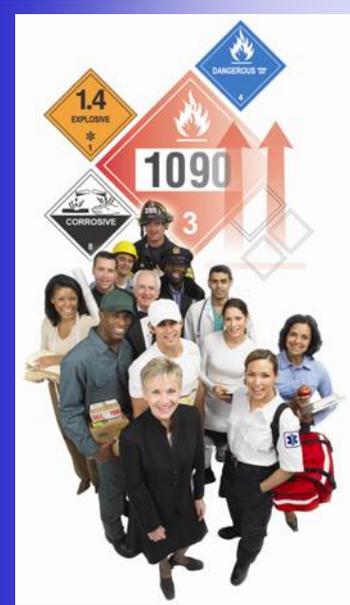
Step 4. Strategy

- **Rank or group security threats (low, medium, or high)**
- **Prioritize opportunities for security threat reduction**
- **Decide on preventative or control actions**
- **Create a written document (security plan) summarizing decisions**



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Step 5. Action

Implement the written plan you develop

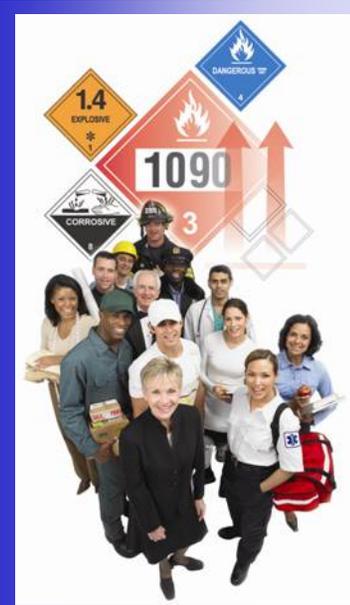
Step 6. Verification

Monitor implementation of your strategy



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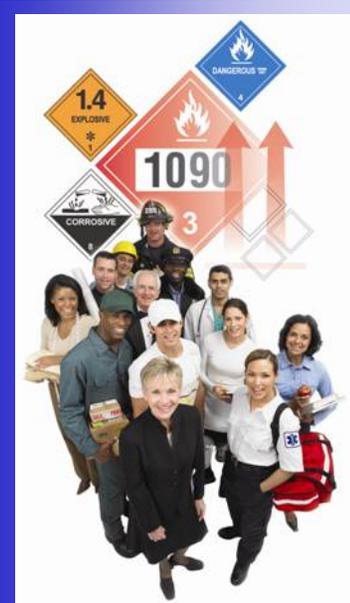
Step 7. Evaluation

- **Determine if goals are being met**
- **Identify relevant performance indicators**
- **Compare your strategies and results with others in your field**



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Required Elements of a Security Plan

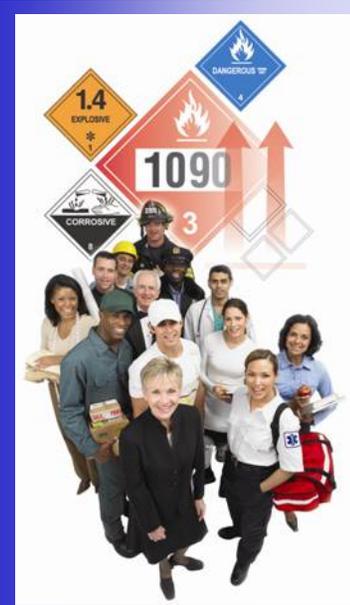
- **Personnel security**
- **Unauthorized access**
- **En route security**

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Personnel Security

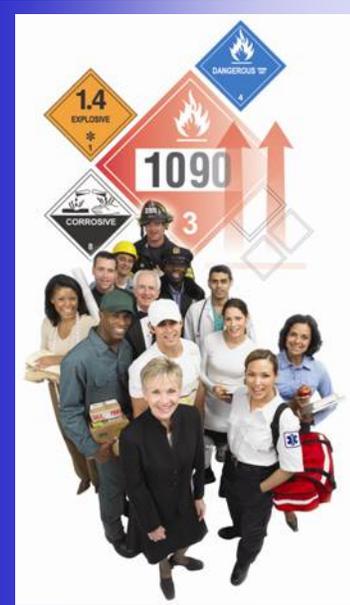
- **Verify information provided on employment applications**
- **Ensure employees are familiar with security plans**
- **Encourage employees to report suspicious incidents or events**
- **Implement routine security inspections**
- **Meet regularly to discuss security measures and improve awareness**
- **Provide information on security issues**
- **Provide awareness and in-depth security training**





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Unauthorized Access

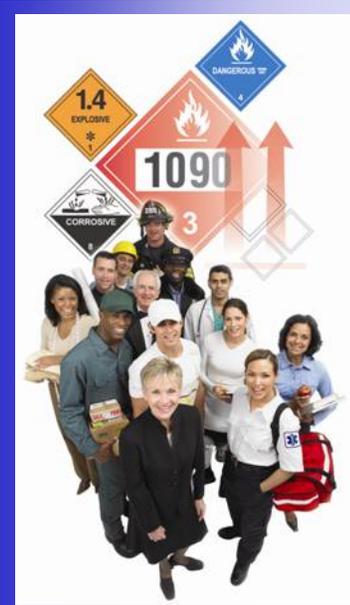
- **Partner with local law enforcement and emergency responders**
- **Request review of facility**
- **Restrict access to facility activities and procedures**
- **Add security guards/off-hour patrols as needed**
- **Improve fencing and lighting**
- **Limit visitor access**
- **Require identification badges for staff**





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Unauthorized Access (cont'd)

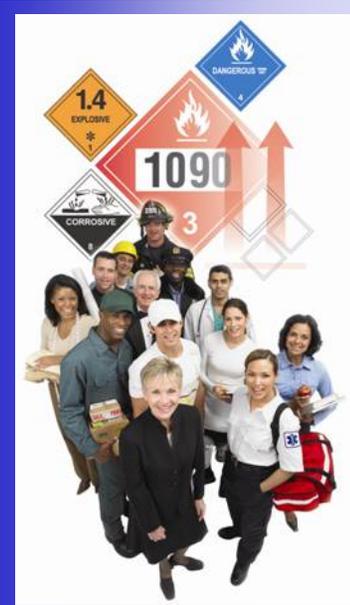
- **Improve security procedures for pick-up and deliveries**
- **Secure hazmat in locked buildings or fenced areas**
- **Lock vehicles and secure containers when stored at facilities**
- **Use tamper resistant seals and locks**
- **Inventory on-site hazmat periodically**
- **Keep records of security incidents**
- **Report suspicious activities to local FBI or local law enforcement**





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En Route Security

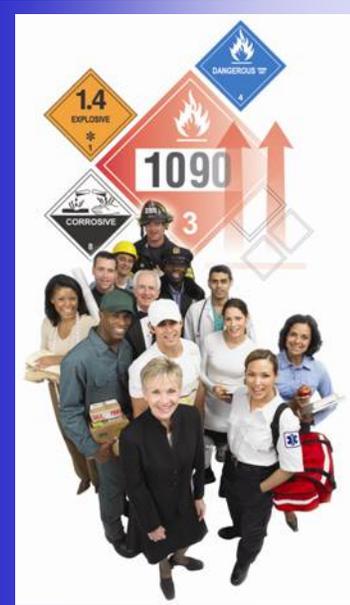
- **Shippers know your carrier**
- **Identify preferred routes and alternatives**
- **Minimize stops**
- **If hazmat must be stored during transportation, ensure storage facility is secure**
- **Consider escorts or guards**





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En Route Security (cont'd)

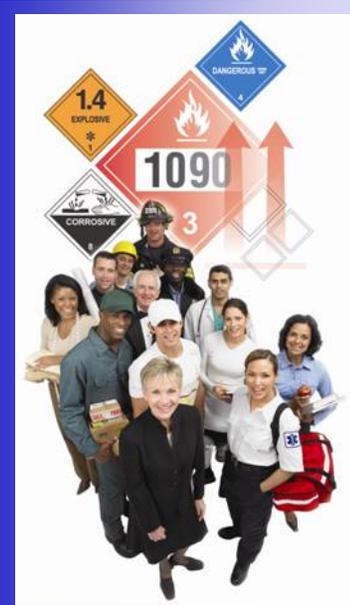
- **Consider using advanced technologies**
- **Install tamper-proof seals on valves and packages or container openings**
- **Establish communication system**
- **Consignees: alert shipper if shipment is late; check carrier's identity**
- **Report suspicious activities to local FBI or local law enforcement**





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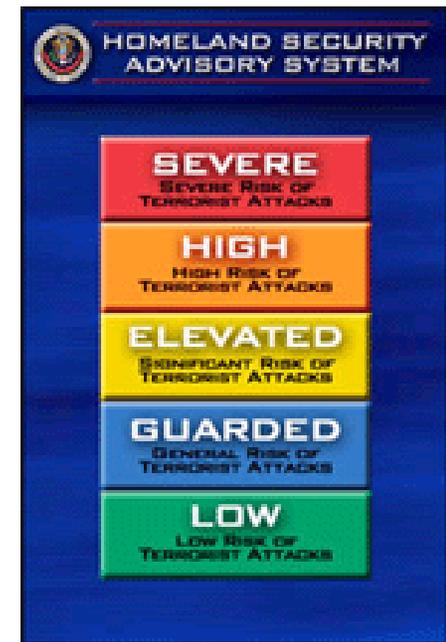
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Graduated Security Planning Using HSAS

**Specific measures
put into place by the
plan may vary
Commensurate with
the level of the
threat at the time**

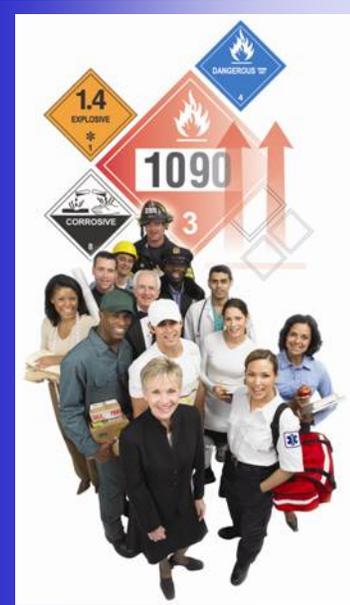


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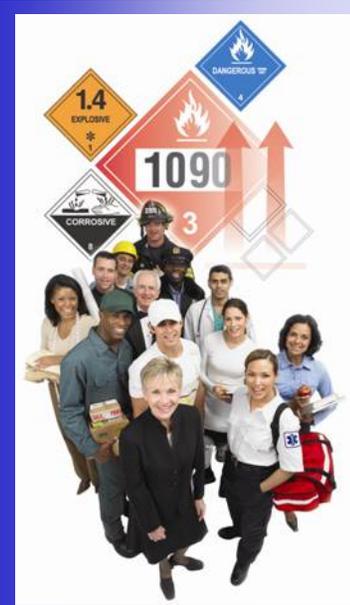
Practical Example of Graduated Security Planning

<i>HSAS Level</i>	<i>Character of Planning</i>
Green – Low	Normal operations Planning and preparation
Blue – Guarded	Normal operations Heightened training Heightened security
Yellow – Elevated	Normal operations Heightened communication/awareness Increased security presence
Orange – High	Normal service delivery Essential business backup Modified capital and maintenance activity Maximum sustainable security effort
Red – Severe	Redundant management/control Modified services delivery, essential business only Suspended capital and maintenance Maximum surge security effort



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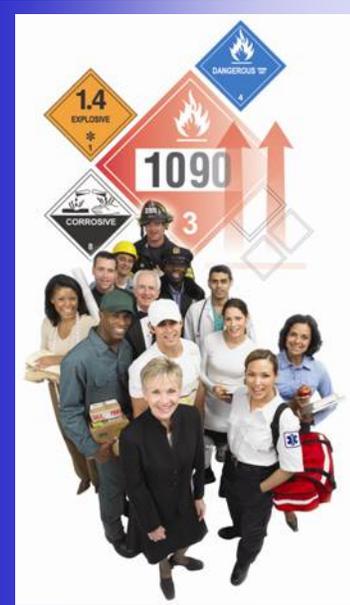
Security Plan “Check List”

- ✓ Are the “threats” adequately defined?
- ✓ Does the security plan address the “threats”?
- ✓ Does the security plan define “performance standards”?
- ✓ Are the security measures site specific?
- ✓ Are the security measures appropriate to the operation, the threats, and the performance standards they are intended to support?
- ✓ Are the defined threats, performance standards and their supporting security measures adequate to the operation?



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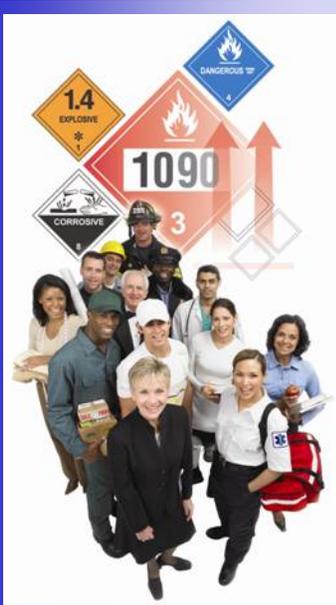
Remember...

- **Think prevention**
- **A security plan is not an emergency plan – it is supposed to *reduce the potential, as well as mitigate consequences*, of a security related incident**
- **Most effective measures don't always involve high-tech or high-cost solutions**
- **A security plan is not a “silver bullet”**



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Informational Resources

PHMSA Office of Hazardous Materials Safety - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://hazmat.dot.gov/>

PHMSA Pipeline and Hazardous Materials Safety Administration

HOME | PHMSA HOME | SITE MAP | CONTACT SEARCH

Office of Hazardous Materials Safety

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- Got a Question?
- New Additions and Updates
- What's Hot in OHM
- News and Discussion
- Incidents
- HMT State and Local Education
- Hazmat Registration
- Emergency Response Guidebook
- International Standards
- HMEP Grants
- Other Transportation Links
- NTSB Recommendations
- Available Documents and Files

[Hurricane Katrina Emergency Exemptions](#)

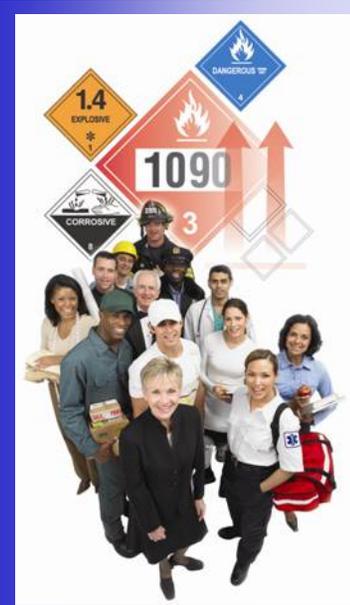
[Hurricane Rita Emergency Exemptions](#)

<http://hazmat.dot.gov>



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration



**Hazardous
Materials
Transportation
Security
Requirements**

How Can You Reach Us?

Hazardous Materials **INFO-LINE**

1-800-HMR49-22

(1-800-467-4922)

Hours of Operation: 9 am – 5 pm ET



DOT/PHMSA Photo

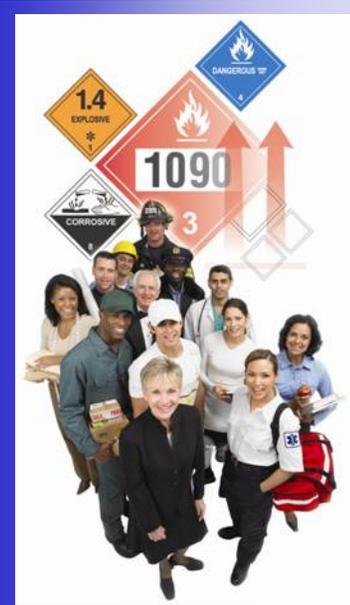
- Obtain answers to HMR questions
- Request copies of Federal Register, special permits or training materials
- Report HMR violations
- Fax on Demand

E-mail: infocntr@dot.gov



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**Hazardous
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**Got A
Question?**