

HAZMAT

Transportation Report



New changes coming for North America rail transport

Stronger, safer rail tank cars for the transportation of flammable liquids are on the horizon for Canada and the United States.

The Pipeline and Hazardous Materials Safety Administration (PHMSA), in coordination with the Federal Railroad Administration (FRA), is adopting requirements designed to reduce the consequences and probability of accidents involving high-hazard flammable trains (HHFTs).

The final rule also adopts safety improvements in tank car design standards, a sampling and classification program for unrefined petroleum-based products, and notification requirements.

PHMSA says the final rule is necessary due to the expansion

in energy production here and in Canada, which has led to significant challenges for North America's transportation system.

The rulemaking is intended to reduce the likelihood of train accidents involving flammable liquids and mitigate the consequences of such accidents should they occur.

PHMSA is revising the Hazardous Materials Regulations (HMR) to establish requirements for any HHFT that is transported over the U.S. rail network.

Based on analysis of the risk of differing train compositions, the rule defines an HHFT as a train comprised of 20 or more loaded

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Rail derailments highlight importance of HHFT info

The recent number of high-hazard flammable trains (HHFTs) involved in derailments has led to the issuance of a safety advisory regarding information availability.

The Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Railroad Administration (FRA) have issued the notice to remind railroads operating an HHFT that certain information may be required by PHMSA and/or FRA personnel during the course of an investigation immediately following an accident.

An HHFT is defined as a train comprised of 20 or more loaded tank cars of a Class 3 flammable liquid in a continuous block, or a train with 35 or more loaded tank cars of a Class 3 flammable liquid across the entire train.

Due to recent derailments involving HHFTs, FRA and PHMSA have conducted several post-accident investigations and say they want to ensure that stakeholders are fully aware of each agency's investigative authority and cooperate with agency personnel conducting investigations,

where time is of the essence in gathering evidence.

Information required

The two agencies say the following information should be immediately available upon request:

- Information on the train consist, including the train number, locomotive(s), locomotives as distributed power, end-of-train device information, number and position of tank cars in the train, tank car reporting marks, and the tank

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Future U.S. hazmat compliance dates

Changes in the regulations are hard to keep up with, and it always seems like there is another one just around the corner! Here is a compilation of what is coming up in the next few years:

DATE	CHANGE	REFERENCE
July 8, 2015	States must enforce definition of <i>Tank vehicle</i> as it applies to issuing a tank vehicle endorsement.	<i>Federal Register</i> March 25, 2013
July 13, 2015	Compliance with HM-250 (Compatibility with IAEA) amendments is required, unless otherwise specified in the final rule.	<i>Federal Register</i> July 11, 2014
January 1, 2016	Compliance with HM-215M (Harmonization with International Standards) amendments is required, unless otherwise specified in the final rule.	<i>Federal Register</i> January 8, 2015
January 1, 2016	Old limited quantity marking may no longer be used; new limited quantity marking must be used.	49 CFR 172.315
January 1, 2016	Each lithium battery must be marked with the watt-hour rating on the outside case.	49 CFR 173.185
January 1, 2017	ID numbers on non-bulk packages must meet size requirements.	49 CFR 172.301
January 1, 2017	New size specifications must be used for: limited quantity, keep away from heat, marine pollutant, petroleum sour crude oil, salvage, excepted quantities, fumigant, and overpack markings.	49 CFR 172.315, 172.317, 172.322, 172.327, 173.3, 173.4a, 173.9, 173.25
January 1, 2017	New label size specifications must be used.	49 CFR 172.407
January 1, 2017	New placard size specifications must be used.	49 CFR 172.519
January 1, 2021	Old ORM-D marking may no longer be used; new limited quantity marking must be used.	49 CFR 172.316 

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- car specifications and relevant attributes of the tank cars in the train.
- Waybill (origin and destination) information.
- The Safety Data Sheet (SDS) or any other document used to provide comprehensive emergency response and incident mitigation information.
- Results of any product testing undertaken prior to transportation that was used to properly characterize the Class 3 flammable liquids for transportation (initial testing).
- Results from any analysis of product samples (taken prior to being offered into transportation) from tank car(s) involved in the derailment.
- Date of acceptance as required to be noted on shipping papers under 49 CFR 174.24.
- If a flammable liquid is involved, the type of liquid and the name and location of the company extracting the material.
- The identification of the company having initial testing performed (sampling and analysis of material) and information on the lab (if external) conducting the analysis.
- Name and location of the company transporting the material from well head to loading facility or terminal.
- Name and location of the company that owns and that

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DIRECTOR OF EDITORIAL RESOURCES: Paul V. Arnold

EDITOR: Randall J. Skoog

CONTRIBUTING EDITORS: Daren B. Hansen

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PHMSA reminds shippers/carriers of ERI responsibilities

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is reminding hazmat shippers and carriers that the availability of emergency response information (ERI) is everybody's business.

PHMSA says shippers and carriers must ensure that current, accurate and timely ERI is immediately available to emergency response officials for shipments of hazardous materials, and that such information is maintained on a regular basis.

Current HMR requirements

With limited exceptions, the Hazardous Materials Regulations (HMR) requires shipments of hazardous materials to be accompanied by shipping papers and other documentation designed to communicate to transport workers and emergency responders the hazards associated with a specific shipment.

This information must include:

- The immediate hazard to health;
- Risks of fire or explosion;
- Immediate precautions to be taken in the event of an accident;
- Immediate methods for handling fires;
- Initial methods for handling spills or leaks in the absence of fire; and
- Preliminary first aid measures.

The information must be in writing, in English, and presented on a shipping paper or related shipping document.

The offeror of a hazardous material is responsible for ensuring the emergency response

information is current, correct, and accurate. Re-offerors may rely on previous data as long as they take no intermediate action, such as blending or mixing the material.

A delay or improper response due to a lack of accurate or timely emergency response information may place emergency response personnel, transportation workers, and the general public or the environment at increased risk, the agency says.

Immediate identification of the hazards and proper instructions for appropriate handling and clean up associated with specific hazardous materials is critical.

Section 172.600(b) of the HMR requires persons who offer for transportation, accept for transportation, transfer, or otherwise handle hazardous materials during transportation to provide emergency response information including an emergency response telephone number.

Therefore, the responsibility to provide emergency response information is not solely that of an offeror. This responsibility is shared by those who offer, accept, transfer, or otherwise handle hazardous materials during transportation and must be completed prior to offering hazardous materials into transportation.

A current safety data sheet (SDS) that includes accurate emergency response information for the product being shipped, although not required, is one form of information that may be used to satisfy the emer-



gency response information requirements.

Section 172.602(a)(1) requires that the emergency response information contain the basic description and technical name of the hazardous material as required by Sections 172.202 and 172.203(k). Section 172.602(b)(3) requires that the ERI be presented

- on a shipping paper;
- in a document, other than a shipping paper, that includes both the basic description and technical name of the hazardous material (e.g. safety data sheet); or
- in a separate document (e.g., an emergency response guidance document such as the most current revision of the Emergency Response Guidebook (ERG)), in a manner that cross references the description of the hazardous material on the shipping paper with the ERI contained in the document.

If a guide number page from the ERG is used, it must include the basic description and, if applicable, the technical name of the hazardous material. If the entire ERG is present, however, the

See PHMSA p. 6

Advisory identifies improperly marked cylinders

A safety advisory has been issued regarding certain high pressure compressed gas cylinders authorized for hazardous materials transportation that were not properly tested.

PHMSA says that Liberty Industrial Gases and Welding Supplies Inc., Brooklyn, NY., marked ICC, DOT-specification, and DOT-Special Permit high pressure compressed gas cylinders as authorized for hazardous materials transportation without properly testing the cylinders and without authorization to do so.

Cylinder requalification

A cylinder requalification consisting of a visual inspection and a hydrostatic test, conducted as prescribed in the Hazardous Materials Regulations (HMR), specifically 49 CFR Section 173.301, is used to verify the structural integrity of a cylinder.

If the requalification is not performed in accordance with the HMR, a cylinder with compromised structural integrity may not be detected and may be returned to service when it should be condemned.

Investigators from PHMSA's Office of Hazardous Materials Safety (OHMS) recently conducted a compliance inspection of Liberty Industrial Gases and Welding Supplies after the

company self-reported improper marking of cylinders.

As a result of the inspection, PHMSA determined that the company marked an unknown number of high pressure compressed gas cylinders with unauthorized markings and certified an unknown number of high pressure compressed gas cylinders as being properly requalified when it had not conducted the required testing.

The evidence suggests that Liberty Industrial Gases and Welding Supplies marked Requalifier Identification Number (RIN) A890 on these cylinders, PHMSA says. However, the company does not hold a RIN approval authorizing it to requalify cylinders.

RIN A890 was issued by PHMSA to another company, Hi Pressure Technologies, located in Newark, NJ, granting it authority to requalify cylinders under the terms of the RIN approval supplied to it.

Only cylinders serviced by Liberty Industrial Gases and Welding Supplies bearing the markings are affected.

Actions requested

If ICC, DOT-Specification, or DOT-Special Permit cylinders have been taken to or received from Liberty Industrial Gases

and Welding Supplies, from April 1986 through October 2014, the cylinders may not have been properly tested.

The cylinders should be considered unsafe and not authorized for the filling of hazardous materials unless the cylinder is first properly tested by an individual or company authorized to requalify DOT-Specification and DOT-Special Permit cylinders.

Cylinders described in this safety advisory notice that are filled with atmospheric gas should be vented or otherwise safely discharged. Cylinders that are filled with a material other than an atmospheric gas should not be vented but instead should be safely discharged.

Prior to refilling or continued use, the cylinders must be taken to a DOT-authorized cylinder requalifier to ensure their suitability for continued service.

A list of authorized requalifiers may be obtained at <http://www.phmsa.dot.gov/hazmat/regs/sp-a/approvals/cylinders>

Further information

Additional information may be obtained by contacting Patrick Durkin, Hazardous Materials Investigator, Eastern Region, Office of Hazardous Materials Safety, (609) 989-2256, or patrick.durkin@dot.gov. 

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operates the terminal or loading facility that loaded the product for rail transportation.

- Name of the railroad(s) handling the tank car(s) at any time from point of origin to destination and a timeline of

handling changes between railroads.

Further information

Additional information may be obtained by contacting:

Karl Alexy, Staff Director, Hazardous Materials Division, Office of Technical Oversight,

FRA, (202) 493-6245, or karl.alexey@dot.gov; or

Richard Raksnis, Director of Field Services, Office of Hazardous Materials Safety, PHMSA, (202) 366-4455, or Richard.raksnis@dot.gov. 

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tank cars of a Class 3 flammable liquid in a continuous block or 35 or more loaded tank cars of a Class 3 flammable liquid across the entire train.

The rule will also require advanced braking systems on high-hazard flammable unit trains (HHFUT), defined as a train comprised of 70 or more loaded tank cars containing Class

3 flammable liquids traveling at speeds greater than 30 mph.

Table 1 describes the regulatory changes implemented in the final rule and identifies entities affected by it.

TABLE 1—AFFECTED ENTITIES AND REQUIREMENTS

Adopted requirement	Affected entity
<i>Enhanced Standards for Both New and Existing Tank Cars Used in HHFTs</i> - New tank cars constructed after October 1, 2015 are required to meet enhanced DOT Specification 117 design or performance criteria. - Existing tank cars must be retrofitted in accordance with the DOT-prescribed retrofit design or performance standard. - Retrofits must be completed based on a prescriptive retrofit schedule and a retrofit reporting requirement is triggered if initial milestone is not achieved. <i>More Accurate Classification of Unrefined Petroleum-Based Products</i> - Develop and carry out sampling and testing program for all unrefined petroleum-based products, such as crude oil, to address: - Frequency of sampling and testing that accounts for any appreciable variability of the material. - Sampling prior to the initial offering of the material for transportation and when changes that may affect the properties of the material occur; - Sampling methods that ensures a representative sample of the entire mixture, as offered, is collected; - Testing methods that enable classification of the material under the HMR; - Quality control measures for sample frequencies; - Duplicate samples or equivalent measures for quality assurance; - Criteria for modifying the sampling and testing program; - Testing or other appropriate methods used to identify properties of the mixture relevant to packaging requirements. - Certify that program is in place, document the testing and sampling program outcomes, and make information available to DOT personnel upon request. <i>Rail routing—Risk assessment</i> - Perform a routing analysis that considers, at a minimum, 27 safety and security factors and select a route based on its findings. These planning requirements are prescribed in 49 CFR § 172.820. <i>Rail routing—Notification.</i> - Ensures that railroads notify State and/or regional fusion centers and State, local, and tribal officials who contact a railroad to discuss routing decisions are provided appropriate contact information for the railroad in order to request information related to the routing of hazardous materials through their jurisdictions. This replaces the proposed requirements to notify State Emergency Response Commissions (SERCs) or other appropriate state delegated entity about the operation of these trains through their States. <i>Reduced Operating Speeds</i> - Restrict all HHFTs to 50-mph in all areas. - Require HHFTs that contain any tank cars not meeting the enhanced tank car standards required by this rule operate at a 40-mph speed restriction in high-threat urban areas¹⁰. <i>Enhanced Braking</i> - Require HHFTs to have in place a functioning two-way end-of-train (EOT) device or a distributed power (DP) braking system. - Require trains meeting the definition of a “high-hazard flammable unit train” (HHFUT)¹¹ be operated with an electronically controlled pneumatic (ECP) braking system by January 1, 2021, when transporting one or more tank cars loaded with a Packing Group I flammable liquid. - Require trains meeting the definition of a HHFUT be operated with an ECP braking system by May 1, 2023, when transporting one or more tank cars loaded with a Packing Group II or III flammable liquid.	Tank Car Manufacturers, Tank Car Owners, Shippers/Offers and Rail Carriers. Offerors/Shippers of unrefined petroleum-based products. Rail Carriers, Emergency Responders. Rail Carriers. Rail Carriers.

¹⁰In the August 1, 2014, NPRM, an HHFT was defined as a train comprised of 20 or more carloads of a Class 3 flammable liquid. This rule defines an HHFT as a train comprised of 20 or more tank car loads of a Class 3 flammable liquid in a continuous block or 35 tank car loads of a Class 3 flammable liquid across the entire train.

¹¹As defined the Transportation Security Administration's regulations at 49 CFR 1580.3—

High Threat Urban Area (HTUA) means an area comprising one or more cities and surrounding areas including a 10-mile buffer zone, as listed in appendix A to 49 CFR Part 1580. The 50-mph maximum speed restriction for HHFTs is consistent with the speed restrictions that the AAR issued in Circular No. OT-55-N on August 5, 2013. The 40-mph builds on an industry imposed voluntary restriction that applies to any “Key Crude Oil

Train” with at least one non-CPC 1232 tank car or one non-DOT specification tank car while that train travels within the limits of any high-threat urban area (HTUA) as defined by 49 CFR 1580.3.

¹¹A “high-hazard flammable unit train” (HHFUT) means a train comprised of 70 or more loaded tank cars containing Class 3 flammable liquids traveling at greater than 30 mph.

With regard to the construction of new tank cars and retrofitting of existing tank cars for use in HHFTs, PHMSA and

FRA are requiring new tank cars constructed after October 1, 2015, to meet the new design or performance standard, if those

tank cars are used as part of an HHFT.

In the final rule, PHMSA adopted a risk-based timeline for

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the retrofit of existing tank cars to meet an enhanced CPC-1232

standard when used as part of an HHFT.

The timeline is provided in the following table:

TABLE 3—TIMELINE FOR CONTINUED USE OF DOT SPECIFICATION 111 (DOT-111) TANKS FOR USE IN HHFTs

Tank car type/service	Retrofit deadline
Non Jacketed DOT-111 tank cars in PG I service	(January 1, 2017*).
Jacketed DOT-111 tank cars in PG I service	January 1, 2018.
Non-Jacketed CPC-1232 tank cars in PG I service	March 1, 2018.
Non Jacketed DOT-111 tank cars in PG II service	April 1, 2020.
Jacketed DOT-111 tank cars in PG II service	May 1, 2023.
Non-Jacketed CPC-1232 tank cars in PG II service	May 1, 2023.
Jacketed CPC-1232 tank cars in PG I and PG II service** and all remaining tank cars carrying PG III materials in an HHFT (pressure relief valve and valve handles).	July 1, 2023.
	May 1, 2025.

* The January 1, 2017 date would trigger a retrofit reporting requirement, and tank car owners of affected cars would have to report to DOT the number of tank cars that they own that have been retrofitted, and the number that have not yet been retrofitted.

** We anticipate these will be spread out throughout the 120 months and the retrofits will take place during normal requalification and maintenance schedule, which will likely result in fleet being retrofit sooner.

The final rule takes a system-wide, comprehensive approach to rail safety commensurate with the risks associated with HHFTs, PHMSA says.

Further information

Additional information may be obtained by contacting Rob Benedict and Ben Supko, PHMSA, (202) 366-8553, or

Karl Alexy, FRA, (202) 493-6245. 

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requirements of Section 172.602 are satisfied.

ERI must also be immediately available for use. Section 172.600(c) requires any person who offers, accepts, transfers or otherwise handles hazardous materials during transportation not do so unless emergency response information is immediately available for use at all times the hazardous material is present.

Additionally, ERI, including the emergency response telephone number, must be immediately available to any person who responds to an incident involving a hazardous material

or is conducting an investigation which involves a hazardous material.

Section 172.602(c) prescribes the maintenance of ERI. This information must be immediately accessible for use in the event of incidents involving hazardous materials. Carriers must maintain ERI in the same manner as prescribed for shipping papers.

ERI must be accompanied by an emergency response telephone number in accordance with Section 172.604. The telephone number must be monitored at all times the hazardous material is in transportation, including storage incidental to transportation.

The telephone number must be of a person who is either knowledgeable of the hazardous material being shipped and has comprehensive emergency response and incident mitigation information for that material, or has immediate access to a person who possess such knowledge and information.

Further information

Additional information may be obtained by contacting Neal Suchak, Transportation Specialist, Standards and Rulemaking Division, Office of Hazardous Materials Safety, (202) 366-8553 or neal.suchak@dot.gov 

Quiz answers

- | | | | |
|-------|-------|--------|--------|
| 1. d. | 5. c. | 9. a. | 13. d. |
| 2. b. | 6. b. | 10. b. | 14. c. |
| 3. d. | 7. d. | 11. c. | 15. d. |
| 4. b. | 8. a. | 12. c. | 16. b. |

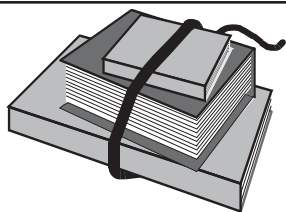
VIOLATIONS & ENFORCEMENT

It is the task of PHMSA's inspection and enforcement staff to inspect companies and individuals who offer hazardous materials for transportation or who manufacture, maintain, repair, recondition, or test packages authorized for transporting hazardous materials.



The following table shows recent violations and hefty fines published by PHMSA.

TYPE OF BUSINESS	VIOLATION	PENALTY AMOUNT
Cylinder retester	- Failed to verify the accuracy of the test equipment to within one percent of the calibrated cylinder's pressure and corresponding expansion values; - Failed to maintain complete and accurate records of cylinder requalification; - Represented, marked, and certified DOT special permit cylinders as having been successfully requalified in accordance with the HMR, while failing to perform requalifications; - Failed to calibrate test equipment at a pressure within 500 psig of actual test pressure at or above 3000 psig; - After equipment malfunction, conducted a second test at the same pressure, rather than at 10 percent or 100 psig higher (whichever is lower); - Failed to provide recurrent hazmat training; - Represented, marked, and certified DOT specification cylinders as having been successfully requalified in accordance with the HMR, while the calibrated cylinder showed permanent expansion during calibration; - Represented, marked, and certified DOT specification cylinders as having been successfully requalified in accordance with the HMR, while failing to report a change in testing personnel to PHMSA within 20 days of the change; - Failed to perform hydrostatic requalification on DOT cylinders at the minimum test pressure of 5/3 the service pressure; and - Failed to maintain at the requalification facility a current copy of a DOT special permit governing cylinders requalified at that facility. .	\$5,450
Fire extinguisher company	- Failed to condemn cylinders when the hydrostatic retest results showed that the permanent expansion of the cylinders exceeded 10 percent of the total expansion; - After equipment malfunction, conducted a second test at the same pressure, rather than at 10 percent or 100 pi higher (whichever is lower); - Failed to verify the accuracy of the test equipment to within one percent of the calibrated cylinder's pressure and corresponding expansion values; - Failed to maintain copies of the special permits at its retest facility applicable to the requalifier's activities; - Failed to provide general awareness, function-specific, and security awareness training, and to provide recurrent hazmat training at least once every three years; - Failed to maintain complete and accurate records of visual inspection and cylinder requalification; - Failed to calibrate test equipment at a pressure within 500 psig of actual test pressure at or above 3000 psig; and - Failed to report in writing to PHMSA, changes in personnel performing hydrostatic cylinder requalifications.	\$12,575
Chemical company	- Offered and transported ammonium-nitrate-based fertilizer, 5.1, accompanied by shipping papers that failed to list the proper UN identification number, include the packing group of the material, and retain copies of hazardous materials shipping papers that contained required information; - Offered anhydrous ammonia, 2.2, for a non-agricultural purpose, rendering the nurse tanks as unauthorized packaging; - Failed to mark a nurse tank with the test dates near the specification plate, or on the front head after it has passed testing; - Failed to complete and submit a DOT form 5800.1 Hazardous Materials Incident Report within 30 days of a reportable hazardous materials incident; and - Failed to provide recurrent hazardous materials training and to retain current records of hazardous materials training.	\$10,500



Training Take-Home

This series provides a ready reference to reinforce your training in significant areas of the Hazardous Materials Regulations. J. J. Keller & Associates, Inc. grants permission to subscribers to reproduce the Training Take-Home and Quarterly Quiz page(s) for internal use at one business location only provided that J. J. Keller's copyright notice remains visible on all copies.

LOADING & UNLOADING HAZARDOUS MATERIALS

Load securement is never more critical than when the load consists of hazardous materials. In order to get from Point A to Point B safely, the hazmat must be not only packaged correctly but also secured properly to keep it from shifting, according to the following requirements.



SECURE ALL PACKAGES

- ◆ Any package containing hazmat not permanently attached to a motor vehicle must be secured against shifting, including relative motion between packages.
- ◆ Packages having valves or other fittings must be loaded in such a way as to minimize the likelihood of damage.



SET THE HANDBRAKE

- ◆ No hazmat must be loaded into or on, or unloaded from, any motor vehicle unless the handbrake is securely set.
- ◆ All other reasonable precautions must be taken to prevent motion of the motor vehicle during the loading or unloading process.



CHOOSE TOOLS WITH CARE

- ◆ No tools that could damage the effectiveness of the closure of any package or other container, or adversely affect a package or container, should be used for loading or unloading of any Class 1 (explosive) material or other dangerous article.



DO NOT SMOKE

- ◆ Smoking is forbidden on, and around, any motor vehicle during loading or unloading of any Class 1 (explosive), Class 3 (flammable liquid), Class 4 (flammable solid), Class 5 (oxidizing), or Division 2.1 (flammable gas) materials.
- ◆ Do not smoke or allow any persons in the vicinity to smoke, light matches, or carry any flame or lighted cigar, pipe, or cigarette.

Make sure your load is **SECURE!**

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NAME _____ DATE _____

TRAINING

Quarterly Quiz — An introduction to the Hazardous Materials Table

The following questions are from **49 CFR 172.101, Purpose and use of hazardous materials table**. Last quarter's quiz focused on the first few columns of the table. This one will look at the middle columns and the important information each contains. Please choose the most correct answer for each question.

1. There are _____ hazard classes and division numbers.
 - a. Six
 - b. Seven
 - c. Eight
 - d. Nine

2. Each hazardous material listed in the Hazardous Materials Table is identified by a _____.
 - a. Letter of the alphabet
 - b. Number
 - c. Symbol
 - d. None of the above

3. The letters _____ may precede the identification number of a hazardous material.
 - a. ID
 - b. NA
 - c. UN
 - d. Any of the above

4. Four digit identification numbers with the _____ prefix are associated only with hazmat shipped in North America.
 - a. ID
 - b. NA
 - c. UN
 - d. Any of the above

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5. The _____ in Column Four of the Table is intended to provide assistance to emergency personnel in identifying a hazardous material.
- Division number
 - Hazard class
 - Identification number
 - Packing group
6. Column _____ specifies the packing group (PG) assigned to each proper shipping name and hazard class.
- Four
 - Five
 - Six
 - Seven
7. Class 1 (explosives), Class (gases), 6.2 Infectious substances, and Class 7 (radioactive) do not have assigned _____.
- Division numbers
 - Hazard classes
 - Identification numbers
 - Packing groups
8. The packing group denotes the degree of _____ presented by the material in transportation.
- Danger
 - Purity
 - Temperature
 - None of the above

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9. Packing group I is _____ danger.

- a. Great
- b. Medium
- c. Minor
- d. Normal

10. Packing group II is _____ danger.

- a. Great
- b. Medium
- c. Minor
- d. Normal

11. Packing group III is _____ danger.

- a. Great
- b. Medium
- c. Minor
- d. Normal

12. Column _____ of the Table specifies the label or multiple labels that must be displayed on a package.

- a. Four
- b. Five
- c. Six
- d. Seven

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13. Column _____ of the Table is titled Special Provisions.
- a. Four
 - b. Five
 - c. Six
 - d. Seven
14. Column Seven contains code _____ applicable to certain proper shipping names.
- a. Letters
 - b. Numbers
 - c. Both a. and b.
 - d. None of the above
15. If the space in Column Seven does not contain any letters and/or numbers, no _____ apply.
- a. Regulations
 - b. Requirements
 - c. Rules
 - d. Special provisions
16. The codes in Column Seven are applicable to the _____ of transportation for specific materials and the types of packaging authorized under specific conditions.
- a. Areas
 - b. Modes
 - c. Requirements
 - d. Rules

NAME _____ DATE _____