Transportation of Hazardous Materials

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Do you transport hazardous materials?

Hazardous materials are any substances defined by the Secretary of Transportation as posing an unreasonable risk to health and safety or property. Most people recognize gasoline, propane, or dynamite as being hazardous materials, but did you know that common materials such as paint, nail polish remover, adhesives, cleaning compounds, hair spray, matches, and others may be classified as hazardous materials? It is important to know if you are transporting hazardous materials because violations of the Hazardous Materials Regulations (HMR) carry civil fines of up to $32,500 and possible criminal penalties including up to five years in jail. Hazardous materials fall into one of the following basic classes and divisions:

Explosives 1.1	Non-Flammable Gas, 2.2	Organic Peroxide, 5.2
Explosives 1.2	Poison Gas, 2.3	Poison Liquid or Solid, 6.1
Explosives 1.3	Flammable & Combustible Liquids, 3	Infectious Substance, 6.2
Explosives 1.4	Flammable Solids, 4.1	Radioactive, 7
Explosives 1.5	Spontaneously Combustible, 4.2	Corrosive, 8
Explosives 1.6	Dangerous When Wet, 4.3	Miscellaneous, 9
Flammable Gas 2.1	Oxidizer, 5.1	Consumer Commodities, ORM-D

To determine if a material you are transporting is hazardous, contact the shipper who provided the material or see the definitions of these materials in the hazardous materials regulations.

What do I need to do if I transport Hazardous Materials?

A motor carrier that transports a hazardous material, whether interstate or intrastate, must comply with the Federal Hazardous Materials Regulations, 49 CFR 100-180. These regulations include requirements including registration, training, shipping papers, labels, placards, and packages. In addition, there are additional requirements in the Federal Motor Carrier Safety Regulations, which include insurance requirements, operational restrictions, commercial driver's license endorsements, routing, parking, and attendance requirements for hazardous materials.

What Are the Fees Associated With Transporting Hazardous Materials?

For those registrants not qualifying as a small business or not-for profit organization, PHMSA is increasing the annual fee from $975 (plus a $25 administrative fee) to $2,575 (plus a $25 administrative fee) for registration year 2010–2011 and following years. Registration is available on line at the following website: www.phmsa.dot.gov

Effective date of this final rule is **April 29, 2010.**

Hazmat Training

Introduction

The purpose of this training is to ensure that each hazmat employer trains its hazmat employees regarding safe loading, unloading, handling, storing and transporting of hazardous materials and emergency preparedness for responding to accidents or incidents involving the transportation of hazardous materials.

Definitions

Hazmat Employer:

A. A person who employs or uses at least one hazmat employee on a full-time, part-time, or temporary basis;
B. A person who is self-employed (including an owner-operator of a motor vehicle, vessel, or aircraft) transporting materials in commerce;
C. A department, agency, or instrumentality of the United States Government, or an authority of a State, political subdivision of a State, or an Indian tribe; and who:

- Transports hazardous materials in commerce;
- Causes hazardous material to be transported or shipped in commerce; or
- Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs or tests a package, container, or packaging component that is represented, marked, certified, or sold by that person as qualified for use in transporting hazardous materials in commerce;
- Representing, marking, certifying, selling, offering, reconditioning, testing, repairing, or modifying containers, drums, or packagings as qualified for use in the transportation of hazardous materials.

Hazmat Employee:

A. A person employed on a full-time, part-time, or temporary basis by a hazmat employer and in the course of such employment directly affects hazardous materials transportation safety.
B. Self-employed (including an owner-operator of a motor vehicle, vessel, or aircraft) transporting hazardous materials in commerce and in the course of such self-employment directly affects hazardous materials transportation safety.
C. A railroad signalman; or
D. A railroad maintenance-of-way employee who:

- Loads, unloads, or handles hazardous materials;
- Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs or tests a package, container, or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce;
- Prepares hazardous materials for transportation;
- Is responsible for safety of transporting hazardous materials;
- Operates a vehicle used to transport hazardous materials.

Examples of who will be required to be trained are:

- A person determining if a material is a hazardous material;
- A person who designs, produces and/or sells a packaging for hazardous materials;
- A person determining proper packaging for a hazardous material;
- A person who puts the hazardous material in the package;
- A person who marks and labels the package;
- A person who fills out shipping papers;
- A person who loads or unloads hazardous materials;
- A person who moves the packaging in a warehouse during the course of transportation;
- A person who operates a vehicle transporting the material;
- A railroad signalman; or
- A railroad maintenance-of-way employee.

Part 172
Subpart H Training

Training for a hazmat employee must be completed within 90 days after employment. Each hazmat employee must again receive the required training at least once every three years.

Training Requirements

Four/*Five Categories of training for highway mode:

- General Awareness/Familiarization Training

  Each hazmat employee shall be provided general awareness/familiarization training designed to provide familiarity with the requirements of this subchapter, and to enable the employee to recognize and identify hazardous materials consistent with the hazard communication standards of this subchapter.
- Function Specific Training

  Each hazmat employee shall be provided functionspecific training concerning requirements of this subchapter, or exemptions issued under subchapter A of this chapter, which are specifically applicable to the functions the employee performs.

  Safety Training

  Each hazmat employee shall receive safety training concerning-

  (i) Emergency response information required by subpart G of Part 172;

  (ii) Measures to protect the employee from the hazards associated with hazardous materials to which they may be exposed in the work place, including specific measures the hazmat employer has implemented to protect employees from exposure; and

  (iii) Methods and procedures for avoiding accidents, such as the proper procedures for handling packages containing hazardous materials.
- Security Awareness Training

  Each hazmat employee must receive training that provides an awareness of security risks associated with hazardous materials transportation and methods designed to enhance transportation security. This training must also include a component covering how to recognize and respond to possible security threats. New hazmat employees must receive the security awareness training required by this paragraph within 90 days after employment.
- *In-Depth Security Training (Only when required to have a Security Plan, see 172.800)

  Each hazmat employee of a person required to have a security plan in accordance with subpart I of this part must be trained concerning the security plan and its implementation. Security training must include company security objectives, responsibilities, actions to take in the event of a security breach, and the organizational security structure.

Initial and Recurrent Training - (To be done within 90 days of hire.)

- Responsibility of Hazmat Employer.
- The Records Shall Include:
  1. Employee's name;
  2. Training completion date;
  3. Description of materials used for training;
  4. Name and address of person providing training;
  5. Certification that employee has been trained and tested.

Applicability & Responsibility for Training

- Hazmat employer to ensure each of its employees are trained.
- Hazmat employee cannot perform any hazardous material function unless trained.
- Training may be provided by public or private source.

Hazardous Materials Transportation Security Requirements Subpart I – Security Plans

This subpart prescribes requirements for development and implementation of plans to address security risks related to the transportation of hazardous materials in commerce.

Security Plans: 172.800

Each person who offers for transportation in commerce or transports in commerce one or more of the following hazardous materials must develop and adhere to a security plan for hazardous materials that conforms to the requirements of this subpart:

Security Plan Requirements Starting 04/08/10

Listed below by Class/Division are the hazardous materials and thresholds subject to security planning under this final rule. The phrase ‘‘large bulk quantity,’’ as used in the following table, refers to a quantity greater than 6,614 pounds for solids or 792 gallons for liquids and gases in a single packaging such as a cargo tank motor vehicle, portable tank, tank car, or other bulk container.

1.1 Any quantity.
1.2 Any quantity.
1.3 Any quantity.
1.4 Placarded quantity.
1.5 Placarded quantity.
1.6 Placarded quantity.
2.1 A large bulk quantity.
2.2 A large bulk quantity of materials with an oxidizer subsidiary.
2.3 Any quantity.
3 PG I and II in a large bulk quantity.
4.1 Placarded quantity desensitized explosives.
4.2 PG I and II in a large bulk quantity.
4.3 Any quantity.
5.1 A large bulk quantity of Division 5.1 materials in PG I and II perchlorates, ammonium nitrate, ammonium nitrate fertilizers, or ammonium nitrate emulsions or suspensions or gels.
5.2 Any quantity of Organic peroxide, Type B, liquid or solid, temperature controlled.
6.1 Any quantity PIH or a large bulk quantity of a material that is not a PIH.
6.2 CDC or USDA list of select agents.
7 IAEA Categories 1 & 2; HRCQ; known radionuclides in forms listed as RAM–QC by NRC; or a quantity of uranium hexafluoride requiring placarding under §172.505(b).
8 PG I in a large bulk quantity.

Therefore, in this final rule shippers and carriers of oxygen and other Division 2.2 compressed gases with a subsidiary hazard of Division 5.1 oxidizer, in quantities greater than 793 gallons in a single package or container, are required to develop and implement security plans. A list of Division 2.2 oxidizing gases that are authorized for transportation in large bulk quantities is provided below.

Air, refrigerated liquid, (cryogenic liquid) 2.2 UN1003 2.2, 5.1
Air, refrigerated liquid, (cryogenic liquid) non-pressurized 2.2 UN1003 2.2, 5.1
Compressed gas, oxidizing, n.o.s. 2.2 UN3156 2.2, 5.1
Gas, refrigerated liquid, oxidizing, n.o.s. (cryogenic liquid) 2.2 UN3311 2.2, 5.1
Liquefied gas, oxidizing, n.o.s. 2.2 UN3157 2.2, 5.1
Nitrous oxide 2.2 UN1070 2.2, 5.1
Nitrous oxide, refrigerated liquid 2.2 UN2201 2.2, 5.1
Oxygen, compressed 2.2 UN1072 2.2, 5.1
Oxygen, refrigerated liquid (cryogenic liquid) 2.2 UN1073 2.2, 5.1

Components of a Security Plan: 172.802

Every motor carrier should evaluate the level of security and safety within their own system, including at a minimum the following:

General Security Information

- A security plan which includes:
  - Personnel Security
  - Hazardous materials and package control
  - En route security
  - Technical innovations
  - Management prerogatives
  - Communications
  - Reassessment based upon current conditions
- Recommend that management encourage input and participation in the development and implementation of the company's security program.

Personnel Security

- Understand any employee could pose a security risk.
- Implement a method for security identification (i.e. ID Badges). Identification should include the employee name, the company name, the employee's picture, and a phone number where the employee's identification can be confirmed.
- Review the list of drivers and request the required number of driver qualification files for review.
- Comply with the investigation and inquiry requirements of 49 CFR Section 391.23. Discuss with the company official any additional checks made, such as criminal background checks, personal reference checks, credit checks, etc.
- When reviewing the contents of driver qualification files, pay particular attention to:
  - Gaps in employment
  - Frequent job shifts
  - All names used by the applicant
  - Type of military discharge
  - Citizenship
  - Present and prior residence information
  - Personal references
  - Criminal history
- Comply with the Immigration Reform and Control Act of 1986. All I-9 forms must be properly completed and maintained for all employees.
- Use face-to-face interviews of prospective employees, to obtain information to help to appraise the applicants' personality, character, motivation, honesty, integrity, and reliability.
- Any information or suspicious activity discovered during the review of these files should be reported immediately to your state's Homeland Security or the state or local Department of Transportation office for possible referral to a local FBI office.

Hazardous Materials and Package Controls

Security enhancements that might be considered:

- Are the facility grounds adequately lighted?
- Are hazardous materials located in a secure area?
- Are transport vehicles located in a secure area?
- Is the access to hazardous materials limited and/or monitored (sign-in/sign out)?
- Consider requiring employee identification cards/badges.
- Consider other protective measures, such as, security alarms, video surveillance, security services, etc.
- Consider if a guard force is appropriate (DOD Shipments, PIH, RAM, other).
- Require records for removal of HM from secure locations.
- Reinforce, with employees, the importance to remain aware of their surroundings at all times.
- Recommend standard procedures for control of HM packages, educating all employees on package control measures. Post procedures prominently at appropriate locations.
- Know who you are dealing with, including shippers, receivers and vendors that service your facility.
- Limit and track keys/entry cards, paying special attention to those issued to employees that are no longer with the company.

En Route Security

- Avoid high population centers, including downtown and/or metropolitan areas, tunnels and bridges where possible (see 49 CFR 397.67).

- Ensure that all hazardous materials are delivered expeditiously.
- Instruct drivers to lock vehicles when in transit or unattended.
- Reinforce attendance and parking rules in 49 CFR Part 397.
- Drivers must be aware of vehicles that may be following their truck and strangers asking inappropriate questions.
- Be suspicious of individuals asking you to stop as a result of an alleged traffic accident. If unsure whether the accident occurred, drive to a police station or to a well-lit busy location before stopping.
- Be cautious about stopping to help stranded motorists or at accident scenes. If possible, call the State Police instead.
- Do not pick up hitchhikers.
- Do not discuss the nature of the cargo at coffee shops, trucks, over the CB radio, etc.
- Drivers must remain aware of their surroundings at all times.
- Drivers should have a means to maintain communication with the company, such as, cell phones, 2-way radios, CBs, satellite communication systems, etc.

Technical Innovations

- Make yourself aware of technical innovations that could assist in security such as cell phones, satellite tracking, and surveillance systems.
- Look at state of the art locks and seals.
- Are access control systems appropriate?
- Consider tamper proof locking features for fifth wheels (so that trailers can't be stolen).
- Consider installing electronic engine controls that require a code, in addition to a key, to start a vehicle.
- Consider theft prevention devices, steering locks, fuel cut-off switches, electrical cut-off switches, and other high security ignition devices.

Management Prerogatives

- Include fingerprinting and photographs of applicants in the employment process.
- Be aware of personal identity theft such as using stolen social security numbers, references, etc.
- Consider running criminal background checks.
- Consider implementing security training for employees that includes:
  - Company security objectives
  - Specific security procedures
  - Employee responsibility
  - Organizational security structure

Communications

- Develop a communications network with others in the industry in an effort to share information to determine if there is a pattern of activities that, when taken alone are not significant, but when taken as a whole generate concern.
- Develop a means of communication within the physical plant and the vehicle (cell phones, satellite tracking, radios, etc.) Is the system capable of reaching all key personnel?
- Security messages should be presented to employees in various methods such as newsletters, bulletin boards, etc.

Readjustment Based Upon Current Conditions

- Emphasize that terrorist activities tend to happen in groups. Security should be heightened if new attacks begin.
- Increase security measures while the U.S. is involved in military activities in foreign countries.
- Increase security measures when the U.S. is at a heightened state of alert.

Other

- Suspicious activities should immediately be reported by telephone, using 311 or 911, as appropriate.

Part 177
Transportation By Highway

- Driver Training (177.816)

Guide For Hazardous Material Shipping Papers

Use Of Guide
This guide is designed for In-house use when reviewing hazardous material shipping paper requirements. However, this document should not be used to determine compliance with the U.S. DOT Hazardous Materials Regulations (HMR).

1. Definitions

A. Shipping Paper - (49 CFR 171) A shipping paper is a shipping order, bill of lading, manifest, or other shipping document serving a similar purpose and containing the information required by 49 CFR 182.201, 172.202 and 172.204.

B. The terms "dangerous goods" and "hazardous materials" are considered synonymous.

Shipper's Responsibility
(49 CFR 172.200(a))

The person offering a hazardous material for transport has the responsibility to properly prepare the shipping paper. (See also 173.22)

A. Contents - When describing a hazardous material on a shipping paper, that description must conform to the following requirements:

1) When a hazardous material and other materials are both described on the same shipping paper, the hazardous material description entries:
   a) Must be entered first, or
   b) Must be entered in a contrasting color (or highlighted in a contrasting color - for reproduced copies of the shipping paper only), or
   c) Must be identified by the entry "X" placed before the proper shipping name in a column captioned "HM". The "X" may be replaced by "RQ" (Reportable Quantity), if appropriate.
2) The required shipping description on the original shipping paper and all copies must be legible and printed (manually or mechanically) in English.
3) The required description may not contain any code of abbreviation, unless it is specifically authorized or required, such as "UN", United Nations, "NA", North America, or "Ltd. Qty.", Limited Quantity.
4) A shipping paper may contain additional information concerning the material provided the information is not inconsistent with the required description. The additional information must be placed after the basic description required by 49 CFR 172.202(a).
5) A copy of the shipping paper must be retained for two years after provided to the carrier.
   a) Each person who provides a shipping paper must retain a copy of the shipping paper required by 172.200(1), or an electronic image thereof, that is accessible at or through its principal place of business and must make the shipping paper available, upon request, to an authorized official of a Federal, State, or local government agency at reasonable times and locations. For a hazardous waste, the shipping paper copy must be retained for 3 years after the initial carrier accepts the material. For all other hazardous materials, the shipping paper must be retained for 2 years after the initial carrier accepts the material. Each shipping paper copy must include the date of acceptance by the initial carrier, except that, for rail, vessel, or air shipments, the date on the shipment waybill, airbill, or bill of lading may be used in place of the date of acceptance by the initial carrier.

Hazardous Materials Description
(49 CFR 172.202)

The shipping description of a hazardous material on a shipping paper must include the following:

A. The identification number for the material (preceded by "UN" or "NA", as appropriate 49 CFR 172.202(a)(3)).
B. Proper shipping name - MAY NOT BE ABREVIATED (49 CFR 172.101 Hazardous Materials Table or 172.102 Optional HMT).
C. The hazard class & subsidiary class or division of the material (See 49 CFR 172.202(a)(2)).

D. Packing Group (If Applicable)
E. The total quantity by weight (net or gross, as appropriate) or volume, including the unit of measure, of the hazardous material, except for empty packaging, cylinders if compressed gases, and packaging of greater than 119 gallons capacity.
F. Except as otherwise provided in the regulations, the basic description must be in the sequence shown in the 49 CFR 172.101 Hazardous Materials Table. For example: UN1090, Acetone, 3, PGII
G. The total quantity of the material covered by one description must appear before or after (or both before and after) the basic description.
    1) The number and type of packages must be indicated. Abbreviations may be used to specify the type of packaging or units of measure. ((Section 172.202(a)(6)) requires the number and types of packages to be indicated on shipping papers.
H. Technical names for N.O.S. and other generic descriptions (172.203(k)). If the material is described on a shipping paper by one of the proper shipping names identified by the letter "G" in Column (1) of the 172.101 Table, the technical name of the hazardous material must be entered in parentheses in association with the basic description as follows: Example: "3, N.O.S., UN 1993, PGI, (Acetone)".

Additional Description Requirements

(49 CFR 172.203) ALL MODES

A. Special permits - Each shipping paper issued in connection with shipment made under a special permit must bear the notation "DOT-SP" followed by the special permit number assigned and located so that the notation is clearly associated with the description to which the special permit applies. Each shipping paper issued in connection with a shipment made under an exemption or special permit issued prior to October 1, 2007, may bear the notation "DOT-E" followed by the number assigned and so located that the notation is clearly associated with the description to which it applies.
B. Place the exemption number adjacent to the description to which the exemption applies. See 172.203(a).
C. Limited Quantities - Descriptions for materials defined as "Limited Quantities" must include the words "Limited Quantities" or "Ltd. Qty" following the basic description. See 172.203(b).
D. Hazardous Substances 172.203(c)
    1) If the proper shipping name (for a material that is a hazardous substance) does not identify the hazardous substance by name, the following shall be entered, in parentheses, in association with the basic description:
        a) Name of the hazardous substance from the Appendix to the 172.101 Hazardous Materials Table or
        b) For waste streams, the waste stream number.
    2) The letters "RQ" (Reportable Quantity) shall be entered on the shipping paper either before or after the basic description required by 49 CFR 172.202 for each hazardous substance.
E. Radioactive Materials - For additional description requirements refer to 172.203(d).
F. Empty Packaging - See 49 CFR 172.203(e).

G. Technical names for N.O.S. descriptions - See 172.203(k).
H. Marine Pollutants - See 172.203(l).
I. Poisonous Materials - See 172.203(m).
J. Elevated Temperature Material (Hot) - see 172.325.

Carrier Responsibility - Transportation by Highway

A. Shipping Papers (49 CFR 177.817)
    1) General - A carrier may not accept a hazardous material for transportation unless it is accompanied by a shipping paper prepared in accordance with the shipping paper requirements contained in Subpart C of Part 172, 49 CFR 172.200, 172.201, 172.202 and 172.203.
    2) Shipper's Certification - See 172.204.
    3) Accessibility of shipping papers - Each carrier and driver of the vehicle shall ensure that the shipping paper is readily available for inspection and

recognizable by authorities in case of an accident or for inspection:

a) Clearly distinguish the shipping paper if it is carried with other shipping papers or other papers of any kind, by either distinctively tabbing it or having it appear first; and
b) Store the shipping paper as follows:
   i. When the driver is at the controls of the vehicle, within easy reach or visible to anyone entering the vehicle compartment; or
   ii. When the driver is away from the vehicle the shipping papers must be left on the driver's seat or in the door pouch on the driver's side.

4) A copy of the shipping paper must be retained for one year after accepting the Hazardous Materials.
   a) A motor carrier (as defined in Sec. 390.5 of subchapter B of chapter III of subtitle B) using a shipping paper without change for multiple shipments of one or more hazardous materials having the same shipping name and identification number may retain a single copy of the shipping paper, instead of a copy for each shipment made, if the carrier also retains a record of each shipment made, to include shipping name, identification number, quantity transported, and date of shipment.

Emergency Response Information Requirements (172.201(D), Subpart G, 172.600)

A. Emergency response information (172.602)
   1) "Emergency response information" means information that can be used in the mitigation of an incident involving hazardous materials and, as a minimum, must contain the following information:
      a) The basic description and technical name of the hazardous material;
      b) Immediate hazards to health;
      c) Risk of fire or explosion;
      d) immediate precautions to be taken in the event of an accident or incident;
      e) Immediate methods for handling fires;
      f) Initial methods for handling spills or leaks in the absence of fire; and
      g) Preliminary first aid measures.
   2) Form of information. The emergency response information must be:
      a) Printed legibly in English;
      b) Available for use away from package containing the hazardous material; and
      c) Presented with or on the shipping paper.
   3) Maintenance of information - Emergency response information shall be maintained as follows:
      a) Carriers - Each carrier who transports a hazardous material shall maintain the emergency response information in the same manner as prescribed for shipping papers.
      b) Facility operators - Each operator of a facility where a hazardous material is received, stored or handled during transportation, shall maintain the emergency response information whenever the hazardous material is present, and the information must be accessible to facility personnel in the event of an incident involving the hazardous materials.

B. Emergency response telephone number (172.604)
   1) A person who offers a hazardous material for transportation must provide a 24-hour emergency response telephone number, includ - ing the area code, for use in the event of an emergency involving the hazardous materials. The telephone number must be:
      a) Monitored at all times the hazardous material is in transportation, including storage incidental to transportation;
      b) The number of a person who is either knowledgeable of the hazards and characteristics 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 possesses such knowledge and information; and
      c) Entered on a shipping paper, as follows:
         i. Immediately following the description of a hazardous material; or

ii. Entered once on the shipping paper in a clearly visible location. It must be indicated that telephone number is for emergency response information (for example: "EMERGENCY CONTACT:"***).

Guide For Placards

Use Of Guide

This guide is designed for in-house use when reviewing hazardous materials placarding requirements. However, this document should not be used to determine compliance with the U.S. DOT Hazardous Materials Regulations (HMR).

Table 1

Category	Placard Name
1.1	Explosive 1.1
1.2	Explosive 1.2
1.3	Explosive 1.3
2.3	Poison Gas
4.3	Dangerous When Wet
5.2 (Type B Temperature Controled)	Organic Peroxide
6.1 (Inhalation Hazard Zone A or B)	Poison Inhalation Hazard
7 (Radioactive yellow III label only)	Radioactive

Table 2

Category	Placard Name
1.4	Explosive 1.4
1.5	Explosive 1.5
1.6	Explosive 1.6
2.1	Flammable Gas
2.2	Non-Flammable Gas
3	Flammable
Combustible Liquid	Combustible
4.1	Flammable Solid
4.2	Spontaneous Combustible
5.1	Oxidizer
5.2	Organic Peroxide
6.1 (PG I or II, other than Zone A or B inhalation hazard)	Poison
6.1 (PG III)	Keep Away from Food
6.2	None
8	Corrosive
9	Class 9
ORM D	None

Note: For details on the uses of Tables 1 and 2, see Section 172.504. For placarding transition chart, see Section 171.14

Materials Of Trade

1. Guidelines

A. Placard any transport vehicle, freight container, or rail car containing any quantity of material listed in Table 1.

B. Materials, which are shipped in bulk packages, such as portable tanks, cargo tanks, or tank cars, must be placarded when they contain any quantity of Table 1 and/or Table 2 material.

C. Motor vehicles or freight containers containing packages which are subject to the "Poison-Inhalation Hazard" shipping paper description of Section 172.203(k)(4), must be placarded POISON in addition to the placards required by Section 172.504 (see Section 172.505).

D. When the gross weight of all hazardous material covered in Table 2 is less than 1001 pounds, no placard is required on a transport vehicle or freight container.

2. Additional Placarding Guidelines

A. A transport vehicle or freight container containing two or more classes of material requiring different placards specified in Table 2 may be placarded DANGEROUS in place of the separate placards specified for each of those classes of material specified in Table 2. However, when 2205 pounds or more of one class of material is loaded therein at one loading facility, the placard specified for that class must be applied. This exception, provided in Section 172.504(b) does not apply to portable tanks, tank cars, or cargo tanks. CAUTION: Check each shipment for compliance with the appropriate hazardous materials regulations - Proper Classification, Packaging, Marking, Labeling, Placarding Documentation - prior to offering shipment.

Materials of Trade means a hazardous material, other than a hazardous waste, that is carried on a motor vehicle —

- For the purpose of protecting the health and safety of the motor vehicle operator or passengers
- For the purpose of supporting the operation or maintenance of a motor vehicle (including its auxiliary equipment) or
- By a private motor carrier (including vehicles operated by a rail carrier) in direct support of a principal business that is other than transportation by motor vehicle

173.6 Materials of Trade Exceptions

When transported by motor vehicle in conformance with this section, a materials of trade is not subject to any other requirements of this subchapter besides those set forth or referenced in this section.

(A)Materials and Amounts

A materials of trade is limited to the following:

(1) A Class 3, 8, 9, Division 4.1, 5.1, 5.2, 6.1, or ORM-D material contained in a packaging having a gross mass or capacity not over—
  (i) 0.5 kg (1 pound) or 0.5 L (1 pint) for a Packing Group I material;
  (ii) 30 kg (66 pounds) or 30 L (8 gallons) for a Packing Group II, Packing Group III, or ORMD material;
  (iii) 1500 L (400 gallons) for a diluted mixture, not to exceed 2 percent concentration, of a Class 9 material.

(2) A Division 2.1 or 2.2 material in a cylinder with a gross weight not over 100 kg (220 pounds), or a permanently mounted tank manufactured to ASME standards of not more than 70 gallon water capacity for a non-liquefied Division 2.2 material with no subsidiary hazard.

(3) A Division 4.3 material in Packing Group II or III contained in a packaging having a gross capacity not exceeding 30 ml (1 ounce).

(4) This section does not apply to a hazardous material that is self-reactive (see 173.124), poisonous by inhalation (see 173.133), or a hazardous waste.

(B) Packaging

(1) Packaging must be leak tight for liquids and gases, sift proof for solids, and be securely closed, secured against movement, and protected against damage.
(2) Each material must be packaged in the manufacturer's original packaging, or a packaging of equal or greater strength and integrity.
(3) Outer packagings are not required for receptacles (e.g., cans and bottles) that are secured against movement in cages, carts, bins, boxes or compartments.
(4) For gasoline, a packaging must be made of metal or plastic and conform to the requirements of this subchapter or to the requirements of the Ocupational Safety and Health Administration of the Department of Labor contained in 29 CFR 1910.106(d)(2) or 1926.152(a)(1).
(5) A cylinder or other pressure vessel containing a Division 2.1 or 2.2 material must conform to packaging, qualification, maintenance, and use requirements of this subchapter, except that outer packagings are not required. Manifolding of cylinders is authorized provided all valves are tightly closed.

(C) Hazard Communication

(1) A non-bulk packaging other than a cylinder (including a receptacle transported without an outer packaging) must be marked with a common name or proper shipping name to identify the material it contains, including the letters "RQ" if it contains a reportable quantity of a hazardous substance.
(2) A bulk packaging containing a diluted mixture of a Class 9 material must be marked on two opposing sides with the four-digit identification number of the material. The identification number must be displayed on placards, orange panels or, alternatively, a white square-on-point configuration having the same outside dimensions as a placard (at least 273 mm (10.8 inches) on a side), in the manner specified in 172.332 (b) and (c) of this subchapter.
(3) A DOT specification cylinder (except DOT specification 39) must be marked and labeled as prescribed in this subchapter. Each DOT-39 cylinder must display the markings specified in 178.65(i).
(4) The operator of a motor vehicle that contains a materials of trade must be informed of the presence of the hazardous material (including whether the package contains a reportable quantity) and must be informed of the requirements of this section.

(D) Aggregate Gross Weight

Except for a materials of trade authorized by paragraph (a)(1)(iii) of this section, the aggregate gross weight of all materials of trade on a motor vehicle may not exceed 200 kg (440 pounds).

(E) Other Exceptions

A materials of trade may be transported on a motor vehicle under the provisions of this section with other hazardous materials without affecting its eligibility for exceptions provided by this section.

Hazardous Materials (HM) Safety Permits

The HM Safety Permitting Program requires carriers of certain hazardous materials to hold an HM Safety Permit issued by the Federal Motor Carrier Safety Administration. Federal hazardous material transportation law, 49 U.S.C. 5101 et seq., was enacted "to provide adequate protection against the risks to life and property inherent in the transportation of hazardous material in commerce ..."

What Hazardous Materials Require An HM Safety Permit?

The following hazardous materials carried in these quantity amounts will require an HM Safety Permit:
1. Radioactive Materials: A highway route-controlled quantity of Class 7 material, as defined in 173.403 of 49 CFR.
2. Explosives: More than 25kg (55 pounds) of a Division 1.1, 1.2 or 1.3 material, or an amount of a Division 1.5 material requiring a placard under Part 172 Subpart F of 49 CFR.
3. Toxic by Inhalation Materials:
   Hazard Zone A: More that one liter (1.08 quarts) per package of a "material poisonous by inhala-

tion," as defined in 171.8 of 49 CFR, that meets the criteria for "hazard zone A," as specified in 173.116(a) or 173.133(a) of 49 CFR.
Hazard Zone B: A "material poisonous by inhalation," as defined in 171.8 of this title, that meets the criteria for "hazard zone B," as specified in 173.116(a) or 173.133(a) of 49 CFR in a bulk packaging (capacity greater than 450 L [119 gallons]).
Hazard Zone C & D: A "material poisonous by inhalation," as defined in 171.8 of this title, that meets the criteria for "hazard zone C," or "hazard zone D," as specified in 173.116(a) of this title, in a packaging having a capacity equal to or greater than 13,248 L (3,500 gallons).

4. Methane: A shipment of compressed or refrigerated liquefied methane or liquefied natural gas or other liquefied gas with a methane content of at least 85% in a bulk packaging having a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases.

Do The Permitting Requirements Apply To Materials That Have Subsidiary Hazards That Fall In The Materials List, Even If Their Primary Hazard Does Not? Example: A Flammable Liquid, Class 3, Has A Subsidiary Poison Inhalation Hazard.

Materials poisonous by inhalation that meet the definitions in 171.8, 173.116(a) and 173.133(a) will require a permit regardless of other hazards the materials may exhibit. Materials will generally not have a subsidiary radioactive or explosive hazard as these hazards would be considered the primary hazard. Liquefied gases must have at least 85% methane content to require a permit, or meet the definitions of materials toxic by inhalation, explosive or radioactive.

Are Shipments Of LPG Covered Under The HM Safety Permit Program?

No. Only shipments of flammable gas containing at least 85% methane content are covered by the HM Safety Permit program.

Is Anhydrous Ammonia Covered Under The HM Safety Permit Program?

Yes, but only when transported internationally as UN1005, ammonia, anhydrous 2.3 Poison Inhalation Hazard or Toxic Inhalation Hazard, Zone D, and in a packaging having a capacity greater than 13,248 L (3,500 gallons).

When Do I Need To Have My HM Safety Permit?

Motor carriers will be required to apply for the HM Safety Permit, or a Temporary HM Safety Permit, the next time they renew their biennial update (fil¬ing the MCS-150). For a motor carrier, such as an intrastate carrier, that has not filed a MCS-150 form, they must hold the HM Safety Permit or a Temporary HM Safety Permit in order to transport the permitted hazardous materials (HM). Only carriers who actually transport a material requiring the Safety Permit are required to go through this process. Carriers no longer will be able to obtain a Safety Permit in the anticipation of the possibility of or with the desire to have to flexibility should the need arise. Should it come to the attention of FMCSA that a carrier no longer transports HM required to have an HMSP, their previously issued permit will be revoked and not be allowed to be retained.

How do I Apply for An HM Safety Permit?

When a motor carrier is required to submit their MCS-150 form, the motor carrier simply completes the MCS-150B form in the place of the MCS-150. This starts the permit application process. If a motor carrier has not previously submitted a MCS-150 form to FMCSA, then they would simply fill out the MCS-150B to start the application process.

Where Can I Obtain The MCS-150B Form?

Hard copies of the MCS-150B are available through each FMCSA District Office.
On-line applications can be completed by visiting the following link: https://www.fmcsa.dot.gov/regulations/hazardous-materials/hazardous-materials-safety-permit-program-hmsp

What Are Carriers Required To Do To Obtain And Keep An HM Safety Permit?

Carriers will be required to:

1. Maintain a "satisfactory" safety rating in order to obtain and hold a safety permit.
2. Maintain their crash rating, and their driver, vehicle, hazardous materials or out-of service rating so they are not in the worse 30 percent of the national average as indicated in FMCSA's Motor Carrier Management Information System (MCMIS).
3. Have a satisfactory security program (and associated training) according to 49 CFR 173.800 in place.
4. Maintain registration with PHMSA (800) 942-6990 or (617) 494-2545.

5. Develop a system of communication that will enable the vehicle operator to contact the motor carrier during the course of transportation and maintain records of these communications.
6. Have written route plan required for radioactive materials set forth in 49 CFR 397.101 and for explosives in Section 397.19 (currently required).
7. Perform a pre-trip inspection (North American Standard (NAS) Level VI Inspection Program for Radioactive Shipments) for shipments containing highway route controlled Class 7 (radioactive) materials.
8. Actively transport a commodity requiring a Safety Permit.

Required To Register?

Pipeline and Hazardous Materials Safety Administration (PHMSA)

Pursuant to Title 49 CFR Part 107, Subpart G (107.601 - 107.620), certain offerors and transporters of hazardous materials, including hazardous waste, are required to file an annual registration statement with the U.S. Department of Transportation and to pay a fee. The fee provides funds for grants distributed to States and Indian tribes for hazardous materials emergency response planning and training. This program began in 1992 and is administered by the Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration (PHMSA).

The Instruction Brochure and Registration Form can be printed from the following link: http://www.hazmat.dot.gov/. This brochure contains extensive information about the registration requirements. You can call (617) 494-2545 or (800) 942-6990 to request additional copies of the brochure and form or to inquire about the status of registrations already submitted and certificates of registration. For questions concerning the program or its requirements, e-mail via the webpage or call (202) 366-4109.

Where can I get more information about Hazardous Materials?

There are many ways to get additional information about safe transportation of hazardous materials. The regulations and interpretations can be found on the Internet at www.hazmat.dot.gov or www.phmsa.dot.gov/hazmat. In addition, the Federal Motor Carrier Safety Administration has developed an informational booklet titled "How to Comply with the Federal Hazardous Materials Regulations" as well as a Spanish/English bi-lingual package which contains general awareness training for hazardous materials. These documents and more information can be found on the FMCSA web site at www.fmcsa.dot.gov/safetyprogs/hm.htm. The department also offers a hazardous materials information hotline at 1-800-HMR-4922. Registration and other hazardous materials questions may also be directed to Pipeline and Hazardous Materials Safety Administration (PHMSA) at (800) 467-4922 or (847) 294-8580 or at the above web site.

Hazardous Waste/Waste Tire

Transporters of Hazardous Waste (includes waste oil, combustible liquids, corrosives, poisons/toxins, flammable liquids, flammable solids, PCB's and infectious waste) are required to have a Hazardous Waste Transporter License Certificate. Transporters of Waste Tires (tires that are no longer suitable for its original intended purpose because of wear, damage, or defect with some exceptions) are required to have a Waste Tire Hauler Permit. The license/permit issued is valid for one year. This registration program allows the state to insure that the environment is protected and that the waste is being properly disposed. Register online @ www.modot.org/mcs or call (866) 831-6277.

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