

HAZMAT Transportation Report



FMCSA moves to amend HM Compliance BASIC

The Federal Motor Carrier Safety Administration (FMCSA) has proposed changes to its Safety Measurement System (SMS) as a result of feedback, and the agency's ongoing continuous improvement efforts.

This time around, the Hazardous Materials (HM) Compliance BASIC is included in the list of changes, and includes making the HM Compliance Basic information available to the public.

The notice was published in the June 29, 2015, *Federal Register*. It may be viewed in its entirety at:

JJKeller.com/tmc

Proposed HM Compliance BASIC changes

Industry raised concerns to FMCSA that large non-cargo tank (CT) HM carriers have had difficulty improving within the HM Compliance BASIC because they are being unfairly compared to CT HM carriers.

FMCSA acknowledged that non-CT HM and CT HM carriers do have different operations, and as a result, they often receive different violations.

After analyzing the issue carefully, FMCSA determined that segmenting the HM Compliance BASIC by CT and non-CT car-

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FMCSA updates out-of-service criteria regarding HMSPs

The Federal Motor Carrier Safety Administration (FMCSA) has amended its Hazardous Materials Safety Permits (HMSP) rules to incorporate recent changes to the Out-of-Service Criteria (OOSC).

The final rule was published in the June 18, 2015, *Federal Register*.

The previous rules referenced the April 1, 2014, edition of the "North American Standard Out-of-Service Criteria and Level VI Inspection Procedures and Out-of-Service Criteria for

Commercial Highway Vehicles Transporting Transuranics and Highway Route Controlled Quantities of Radioactive Materials as defined in 49 CFR Part 173.403," through the final rule FMCSA incorporated in the April 1, 2015, edition.

Eight changes in 2015

Eight changes were made in the 2015 edition, according to the FMCSA.

The first change is to create consistency in the language used between commercial driver's

license (CDL) and non-CDL drivers, when being taken out of service. It does not change the criteria used to take drivers out of service, and is not a substantive change.

The second change is to align the standard with FMCSA's regulation governing operation of a vehicle while fatigued, found at 49 CFR 392.3. This change does not alter the criteria an inspector would use to take a driver out of service and is not a substantive change.

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The third change removes Part I, Item 7, which addresses communication. The 2014 edition included an item covering the responsibility of the driver and motor carrier to ensure adequate communication in Canada, Mexico, and the United States.

However, there should be no additional burden placed on drivers as a result of the change in the 2015 standard.

The fourth, fifth, and sixth changes amend Part II, Item 1, addressing brakes. The language for the out-of-service condition

for Defective Brakes and Front Steering Axle(s) Brakes was modified to add loose and missing caliper mounting bolts to the 20 percent calculation for determining OOSC for hydraulic brakes.

Its omission was an oversight when the criterion for brakes was rewritten, the FMCSA says.

An amendment to the language for the application of OOSC for worn hoses clarifies that this section is intended for air brake hoses only.


Also, the amendment to the OOSC addresses the improper repair of hydraulic brake lines by means of placing a piece of tub-

ing over the metal tubing and attaching with hose clamps. As this method of repair is not permitted under the FMCSRs, this change will not have a substantive impact, the FMCSA says

The seventh change revises wording that was causing confusion in Part II, Item 3, concerning coupling. FMCSA says the current language caused confusion and gave the impression that the entire fifth wheel was not being taken into consideration. The new OOSC language clarifies how to measure cracks in parent metal, how to determine the 20 percent weld cracks, and defines a well-defined (especially open) crack, as well as a crack in a repair weld. This revision is a clarification and not a substantive change.

The final change adds a paragraph (c) to Part II, Item 15. The new paragraph explicitly calls out the practice of using loose or temporary seating. As the practice is already prohibited under the FMCSRs, the additional language does not alter the criteria an inspector would use to take a driver out of service and is not a substantive change.

Further information

Additional information may be obtained by contacting Michael Huntley, FMCSA, (202) 366-9209, or michael.huntley@dot.gov. 



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Changes from p. 1

riers will address this bias and improve the SMS’s ability to identify HM carriers with serious safety problems.

The agency studied the feasibility of segmenting the HM Compliance BASIC by business type and found that for most motor carriers that operate CTs,

the CTs make up a majority of the carrier’s inspections.

A carrier was categorized as a CT carrier if more than 50 percent of its inspections indicated the vehicles were CTs, and for most, that percentage was actually much higher.

Analysis shows that there are a sufficient number of carriers for

both segments in all safety event groups for effective assessment.

FMCSA reviewed BASIC percentile changes with segmentation and found that large CT carriers would see an increase in percentiles, while large non-CT carriers would see a decrease. Small carriers, both CT and non-CT, would not see a change.


HM CARGO SEGMENTATION IMPACT

| SEG HM inspections | Current BASIC % | New BASIC non-CT % | New BASIC CT % |
|--------------------|-----------------|--------------------|----------------|
| 5-10 | 80 | Same | Same. |
| 11-15 | 80 | Same | Same. |
| 16-40 | 80 | Same | Same. |
| 41-100 | 80 | 71% (-9%) | 85% (+5%). |
| 100+ | 80 | 62% (-18%) ... | 90% (+10%). |



With the proposed changes, FMCSA says it’s confident that the data in the HM Compliance BASIC will appropriately reflect the distinct operations of the carriers.

Further information

Additional information may be obtained by contacting David Yessen, (609) 275-2606, or david.yessen@dot.gov. 

CGSB releases new proposed standard for IBCs

The Canadian General Standards Board (CGSB) has released a proposed draft of the National Standard of Canada for Design, Manufacture and Use of Intermediate Bulk Containers for the transportation of dangerous goods.


The draft standard “CAN/CGSB-43.146” is available by contacting the CGSB, (800) 665-2472.

The Standards Council of Canada requires all proposed draft standards be made available for a period of 60 days for public

review during the development process, to allow input from interested parties. The period of public review will be open for comments until September 1, 2015.

The CGSB is one of the largest standards development and conformity assessment organizations in Canada. It provides standards development and conformity assessment services, including programs for certification of products and services, registration of quality and environmental management systems,



and related services. These services are provided in support of economic, regulatory, procurement, health, safety, and environmental interests. 

Transport Canada proposes incident reporting changes

Transport Canada is proposing to revise its incident reporting requirements. The proposed amendment will include:

- A new definition of release,
- Amendments to the reporting requirements,
- New requirements for reporting the loss or theft of dangerous goods, and
- New reporting criteria for undeclared dangerous goods transported by air.

The proposed amendments would apply to the transportation of dangerous goods in all transportation modes.

The TDG Act

The Transportation of Dangerous Goods Act, 1992 (TDG Act) provides that any person who has the charge, management, or control of a means of containment shall report any release or anticipated release (e.g. spills, accidents), loss or theft of dangerous goods that is or could be in excess of a quantity or concentration specified by regulation from the means of containment if it endangers, or could endanger, public safety.

The TDG Act also provides for the development of regulations that prescribe who will receive reports, the manner of making the reports, the information to be included, and the circumstances when a report is not required.

Prior to 2009, security issues were not addressed in the TDG Act. The TDG Act now allows for the making of regulations to address security issues with respect to the transportation of dangerous goods, and Part 8 of

the Transportation of Dangerous Goods Regulations (TDG Regulations) is the focus of the proposed amendment.

New definition of “release”

This proposed amendment reflects the new definition of “release” and repeals the definitions of “accidental release” and “imminent accidental release.”

According to the proposal, “release” will capture both accidental releases and voluntary releases. The current definitions only capture releases due to accidents. The broader definition clarifies the scope of the term and better identifies the discharges requiring a report.

The TDG Act now refers to “anticipated release” for potential releases including, but not restricted to, anticipated releases from means of containment that are stressed or damaged in handling (e.g. a means of containment is damaged by a forklift) or in an accident (e.g. a tanker truck is driven into a ditch, a train is derailed, dangerous goods are lost in navigable waters during a storm) and that will most likely have suffered from structural damage.

The amendment proposes to require the reporting of all instances when a means of containment is damaged so its integrity is compromised in a way that may lead to a release.

Amendments to reporting requirements

In the past, the quantity of dangerous goods released during transport was the only factor used to determine if a report was required and there were no

exceptions with respect to accidental releases and imminent accidental releases.

The proposed amendment requires a person to report a release or an anticipated release in excess of a trace amount of dangerous goods, except for dangerous goods included in Packing Group III of the following classes for which the threshold is an amount greater than 30 L or 30 kg:

- Class 3, Flammable Liquids;
- Class 4.1, Flammable Solids;
- Class 4.2, Substances Liable to Spontaneous Combustion;
- Class 4.3, Water-reactive Substances;
- Class 5.1, Oxidizing Substances;
- Class 5.2, Organic Peroxides;
- Class 6.1, Toxic Substances;
- Class 8, Corrosives; and
- Class 9, Miscellaneous Products, Substances, or Organisms.

Because dangerous goods included in Packing Group III pose a lower risk in transport, the threshold aims to exclude the reporting of small releases or small anticipated releases resulting from routine operations involving pumps, compressors, and connectors that connect and disconnect during the loading and unloading of dangerous goods.

For Class 7, Radioactive Materials, a report would be required for an emission level greater than the one established in Section 20 of the Canadian Nuclear Safety Commission (CNSC) Packaging and Transport of Nuclear Substances Regulations.

The proposed amendment also provides for certain cases where the obligation to make a report does not apply when a release or anticipated release does not result in the death of a person, an evacuation of people, or the closure of a facility, a road, a main railway line, a main waterway or a runway.

However, a report to the Canadian Transport Emergency Center (CANUTEC) must still be made if a:

- Person sustained injuries that required immediate medical treatment by a health care provider;
- Means of containment caught fire, ruptured or exploded;
- Release occurred as a result of the venting of the means of containment;
- Center sill or stub sill of a tank car cracked by at least 15 cm; or
- Means of containment's integrity was compromised.

Report of loss or theft of dangerous goods

The proposed amendment includes new requirements for the reporting of the loss or theft of dangerous goods.

These incidents would need to be reported to CANUTEC and, if applicable, to Natural Resources Canada (NRC) and the CNSC, respectively. The following information would be required:

- The name, telephone number, and address of the place of business of the person making the report;
- The name and address of the place of business of the consignor, the consignee, and the carrier;



- Whether the dangerous goods were lost or stolen;
- The classification of the dangerous goods;
- The quantity of dangerous goods lost or stolen;
- A description of the type of means of containment containing the dangerous goods and a description or photograph of the certification safety marks; and
- The approximate date, time, and geographic location of the loss or theft.

Undeclared dangerous goods transported by aircraft

The proposed amendment would adopt International Civil Aviation Organization (ICAO) reporting requirements and include new criteria for reporting dangerous goods transported by aircraft that are either misdeclared or undeclared.

Transport Canada says it will address situations where dangerous goods are shipped either without a shipping document or without a dangerous goods safety mark that meets the require-

ments prescribed in the TDG Regulations.

Once the amendments are finalized, persons who discover undeclared or misdeclared dangerous goods would have to report, in writing, to the Director General of the TDG Directorate, within 30 days after the day the dangerous goods were discovered onboard an aircraft, at an aerodrome, or at an air cargo facility.

49 CFR

The proposed amendments will be harmonized with reporting practices in the United States. Transport Canada says the proposed criteria are aligned with the reportable incidents identified in the U.S. Code of Federal Regulations (CFR) 49 under paragraph 171.15(b).

The agency says that harmonizing common elements with reporting practices in the United States would facilitate the comparison of common data sets, allowing Canada and the United States to merge data sets based on common elements to produce larger data sets for risk analysis.



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 |
|------------------------------|--|----------------|
| Fire equipment company | <ul style="list-style-type: none"> Failed to maintain copies of the applicable sections of the regulations at its retest facility; Failed to provide recurrent hazardous materials training and to maintain training records; Represented, marked, and certified DOT specification cylinders as having been successfully requalified when the cylinders were not hydrotested in accordance to the regulations; Failed to calibrate test equipment at a pressure within 500 psig of actual test pressure at or above 3000 psig; and Failed to maintain complete and accurate records of cylinder requalification. | \$6,400 |
| Lifesaving equipment company | <ul style="list-style-type: none"> Offered signals, smoke (cruise ship flares), 1.4G, in an unauthorized UN specification package; Transported carbon dioxide, 2.2, and failed to describe the hazardous material in the manner required; Offered signals, smoke (cruise ship flares), 1.4G, and failed to ensure the organization capable of providing detailed information concerning emergency response was provided current information on hazardous materials prior to offering for transportation; Offered signals, smoke (cruise ship flares), 1.4G, and failed to affix a warning label in association with an exemption; and Transported one high pressure cylinder, carbon dioxide, 2.2, in the cab of a company truck, and failed to restrain the cylinders in an upright or horizontal position. | \$6,200 |
| Farm cooperative | <ul style="list-style-type: none"> Offered ammonia anhydrous, 2.2, in a nurse tank that did not meet the requirements of Section VIII of the ASME Code (American Standard of Metallurgical Engineers); Offered ammonia anhydrous, 2.2, in a nurse tank with wear and abrasion that could substantially reduce the effectiveness or integrity of the package; Offered ammonia anhydrous, 2.2, UN1005, in a nurse tank and failed to mark and placard the tank on both sides and each end; Failed to properly mark each cylinder with the month and year of requalification or to have an approval issued by the Associate Administrator authorizing in writing a variation from the marking requirements; Failed to maintain complete and accurate records of cylinder requalification; and Failed to verify the accuracy of the test equipment to within one percent of the calibrated cylinder's pressure and corresponding expansion values and to calibrate test equipment at a pressure within 500 psig of actual test pressure at or above 3000 psig. | \$5,600 |
| Carrier | <ul style="list-style-type: none"> Filled and transported liquefied petroleum gas in a cargo tank that was overdue the prescribed periodic retest; Failed to provide recurrent hazardous materials training; Failed to condemn cylinders consistent with the requirements of the regulations by stamping X's over the specification marking, stamping "condemned" onto the cylinder, or rendering the cylinder incapable of holding pressure and providing written notification of the condemned cylinder to the cylinder's owner; and Failed to have a current Requalification Identification Number (RIN) at the time of inspection. | \$6,800 |
| Shipper | <ul style="list-style-type: none"> Offered various hazardous materials accompanied by multiple shipping papers that provided an unauthorized emergency response telephone number; Contained the incorrect packing group for the material; Failed to include the required technical name in parenthesis for a listed "n.o.s." material; Failed to provide general awareness, function-specific, safety, and security awareness training; and Failed to retain copies of hazardous materials shipping papers for a minimum of two years. | \$2,100 |



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 |
|-----------------|---|--|
| 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  |

NRC, DHS, and DOT finalize MOU for radioactive transport security

Three agencies have finalized a Memorandum of Understanding (MOU) to define the cooperative working relationship between them for radioactive material transportation security.

The MOU was published in the July 14, 2015, *Federal Register*.

The goal of the MOU is to ensure that the transportation of radioactive material in the U.S. and across U.S. borders is carried out in a secure manner that protects public health and safety, and in a manner that is not harmful to the common defense and security of the U.S.


The MOU establishes a framework for the Nuclear Regulatory Commission (NRC), the Department of Homeland Security (DHS), and the Department of Transportation (DOT) to coordinate, to the maximum extent practicable, their respective responsi-

bilities and activities on security of radioactive material transportation across and within U.S. borders.

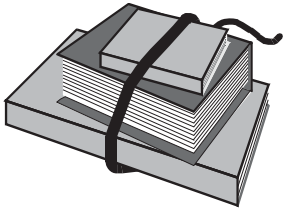
The intent of the MOU is to:

- Enhance collaborative exchanges,
- Facilitate the sharing of expertise and information,
- Promote leveraging of mutual interests, and
- Reduce duplication in shared areas of responsibility.

Further information

Additional information may be obtained by contacting Albert Tardiff, Office of Nuclear Security and Incident Response, (301) 287-3613, or Al.Tardiff@nrc.gov. 





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.

SEGREGATION OF HAZARDOUS MATERIALS



The requirements apply to hazardous materials ...

- ◆ In packages that must be labeled or placarded
- ◆ In a compartment within a multi-compartmented cargo tank, OR
- ◆ In a portable tank loaded in a transport vehicle or freight container

Some hazardous materials may not be stored, loaded, and/or transported together. See 49 CFR 177.848 for the Segregation Table and Compatibility Table for Class 1 Explosive Materials.

Know what hazmat to segregate!

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