Changes for Hazardous Materials in 2017

Presented to: Long Island Import Export Association, Inc.
By: Special Agent Anthony Affissio
Date: February 16, 2017
Objectives

- Provide a brief overview of the FAA’s Hazardous Materials Safety Program (HMSP)
- Describe the regulatory structure and where to find updates
- Who is responsible for what?
- Discuss the changes to the ICAO/IATA Dangerous Goods Regulations (DGR)
- Where does training fit in?
HAZARDOUS MATERIALS (HAZMAT) SAFETY CONTACTS
<table>
<thead>
<tr>
<th>Office</th>
<th>Areas of Responsibility</th>
<th>Name</th>
<th>Address</th>
<th>Contact Information</th>
</tr>
</thead>
</table>
| Atlanta Office          | Alabama, Florida, Georgia, Kentucky, North Carolina, Mississippi, South Carolina, Tennessee, Puerto Rico, and U.S. Virgin Islands | Deborah Kennedy     | 1701 Columbia Avenue College Park, GA 30337        | Email: deborah.kennedy@faa.gov  
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24-hour Operation Center: (404) 305-5180                                      |
| New England Office      | Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont              | Catherine Zamparelli| 12 New England Executive Park Burlington, MA 01803 | Email: catherine.e.zamparelli@faa.gov  
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| New York Office         | Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia, and the District of Columbia | Aaron Sinder        | 1 Aviation Plaza Jamaica, NY 11434                 | Email: aaron.sinder@faa.gov  
Phone: 781-238-7711  
Fax: 781-238-7716  
24-hour Operation Center: 718-553-3100                                          |
### Joint Security and Hazardous Materials Safety Office, Central

<table>
<thead>
<tr>
<th>Office</th>
<th>Areas of Responsibility</th>
<th>Name</th>
<th>Address</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago Office</td>
<td>Illinois, Indiana, Michigan, Minnesota, North Dakota, Ohio, South Dakota, and Wisconsin</td>
<td>Joan Haas</td>
<td>2300 East Devon Avenue, Room 229 Des Plaines, IL 60018</td>
<td>Email: <a href="mailto:joan.haas@faa.gov">joan.haas@faa.gov</a> Phone: (847) 294-7107 Fax: (847) 294-7816 24-hour Operation Center: (847) 294-8400</td>
</tr>
<tr>
<td>Fort Worth Office</td>
<td>Arkansas, Iowa, Kansas, Louisiana, Missouri, New Mexico, Nebraska, Oklahoma, and Texas</td>
<td>Gary Mohr</td>
<td>2601 Meacham Blvd. (Fed Ex zip 76137) Fort Worth, TX 76193-0740</td>
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</tr>
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</table>

### Joint Security and Hazardous Materials Safety Office, West

<table>
<thead>
<tr>
<th>Office</th>
<th>Areas of Responsibility</th>
<th>Name</th>
<th>Address</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles Office</td>
<td>Arizona, California, Nevada, Hawaii, Guam, and American Samoa</td>
<td>Felicia Boyd</td>
<td>15000 Aviation Blvd. 5th Floor, Room 5021 Lawndale, CA 90261</td>
<td>Email: <a href="mailto:Felicia.boyd@faa.gov">Felicia.boyd@faa.gov</a> Phone: (310) 725-3701 Fax: (310) 725-6876 24-hour Operation Center: (310) 725-3300</td>
</tr>
</tbody>
</table>
Risk Based Safety Program Priorities

- Focus on undeclared shipments of Hazardous Materials
- Inspection of air carriers & shippers moving the largest amount of cargo on passenger aircraft
- Shippers from particular industries known to have poor compliance and/or transport critical commodities
- Vetting of entities requesting Special Permits or Approvals
- Conduct Outreach with parties involved in the transportation of Hazardous Materials by Air
§173.22 Shipper's responsibility.
(a) Except as otherwise provided in this part, a person may offer a hazardous material for transportation in a packaging or container required by this part only in accordance with the following:
(1) The person shall class and describe the hazardous material in accordance with parts 172 and 173 of this subchapter, and
(2) The person shall determine that the packaging or container is an authorized packaging, including part 173 requirements, and that it has been manufactured, assembled, and marked in accordance with:....

§171.8 Definitions and abbreviations.
Person who offers or offeror means:
(1) Any person who does either or both of the following:
(i) Performs, or is responsible for performing, any pre-transportation function required under this subchapter for transportation of the hazardous material in commerce.
(ii) Tenders or makes the hazardous material available to a carrier for transportation in commerce.

§175.3 Unacceptable hazardous materials shipments.
A hazardous material that is not prepared for shipment in accordance with this subchapter may not be offered or accepted for transportation or transported aboard an aircraft.

171.2 General requirements.
(b) Each person who offers a hazardous material for transportation in commerce must comply with all applicable requirements of this subchapter, or an exemption or special permit, approval, or registration issued under this subchapter or under subchapter A of this chapter. There may be more than one offeror of a shipment of hazardous materials. Each offeror is responsible for complying with the requirements of this subchapter, or an exemption or special permit, approval, or registration issued under this subchapter or subchapter A of this chapter, with respect to any pre-transportation function that it performs or is required to perform; however, each offeror is responsible only for the specific pre-transportation functions that it performs or is required to perform, and each offeror may rely on information provided by another offeror, unless that offeror knows or, a reasonable person, acting in the circumstances and exercising reasonable care, would have knowledge that the information provided by the other offeror is incorrect.
Title 49 of the Code of Federal Regulations

• 49 CFR is the US Department of Transportation regulatory document. It is the LAW.
• Parts 171-180 of 49 CFR contain the Hazardous Materials Regulations (the “HMR”).
• These rules are written by Pipeline and Hazardous Materials Safety Administration (PHMSA)
International Civil Aviation Organization Technical Instructions (ICAO TI)

• With some restrictions, 49 CFR Subpart C of Part 171 allows a hazardous material which is prepared in accordance with the ICAO TI to be transported by aircraft and by motor vehicle either before or after being transported by aircraft.
International Air Transport Association (IATA) Dangerous Goods Regulations

• Industry organization’s guidance. This is not a regulatory document. The regulations contained within it are not permitted to be less restrictive than the law. Many rules adopted by the airline industry are set above the minimum regulatory requirements.
Dangerous Goods

Setting the standards leads to safety!

Some items may endanger the safety of an aircraft or persons on board it. The air transportation of these dangerous materials can either be forbidden or restricted.

The definition of standards for documentation, handling and training, as well as their promotion and use, contributed to achieve a very high degree of safety in the transportation of dangerous goods by air.

Dangerous Goods Regulations

IATA works closely with local governments and ICAO in the development of regulations. This way, we ensure that the rules and guidelines on dangerous goods transportation are effective and efficient.

The IATA Dangerous Goods Regulations (DGR) manual is the global reference for shipping dangerous goods by air and the only standard recognized by airlines.

NBW

The 58th Edition is effective 1 January 2017. View the Significant Changes in DGR 58 (p.27). You can also find an overview of the changes provided by IATA’s subject matter experts here.

Training
Federal Register

Volume 81

No. 173

Wednesday, September 7, 2016

PART II

Department of Transportation

Pipeline and Hazardous Materials Safety Administration


Hazardous Materials: Harmonization With International Standards (RHSA); Proposed Rule

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 175, 176, 177, and 180

[Docket No. PHMSA-2015-0273 (HM-217N)]

RIN 2127-AF18

Hazardous Materials: Harmonization With International Standards (RHSA)

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (PNRM).

SUMMARY: The Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to amend the Hazardous Materials Regulations (HMR) to maintain consistency with international regulations and standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. These revisions are necessary to harmonize the HMR with recent changes made to the International Maritime Dangerous Goods Code, the International Civil Aviation Organization’s Technical Instructions for the Safe Transport of Dangerous Goods by Air, and the United Nations Recommendations on the Transport of Dangerous Goods—Model Regulations. Additionally, PHMSA proposes several amendments to the HMR that result from coordination with Canada under the U.S.-Canada Regulatory Cooperation Council.

DATES: Comments must be received by November 7, 2016.

ADDRESSES: You may submit comments by any of the following methods:


Hand Delivery: To U.S. Department of Transportation, Docket Operations, M-30, Ground Floor, Room W12-145, 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m. Monday through Friday, except Federal holidays.

Instructions: Include the agency name and docket number PHMSA-2015-0273 (HM-217N) or RIN 2127-AF18 for this rulemaking at the beginning of your comment. Note that all comments received will be posted without change to http://www.regulations.gov including any personal information provided. If sent by mail, comments must be submitted in duplicate. Persons wishing to receive confirmation of receipt of their comments must include a self-addressed stamped postcard.

Privacy Act: Anyone is able to search, read, and download the electronic form of any written communications and comments received into any of our docket boxes by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 14777), or you may visit http://www.regulations.gov.

Submit: You may view the public docket through the Internet at http://www.regulations.gov or in person at the Docket Operations office at the above address (See ADDRESSES).


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I. Executive Summary

The Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to amend the Hazardous Materials Regulations (HMR; 49 CFR parts 171 to 180) to maintain consistency with international regulations and standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. This rulemaking project is part of our ongoing bilateral process to harmonize the HMR with international regulations and standards.

In this NPRM, PHMSA proposes to amend the HMR to maintain consistency with various international standards. The following are some of the more noteworthy proposals set forth in this NPRM:


• Hazardous Materials Table (HMT): PHMSA proposes amendments to the §172.101 Hazardous Materials Table (HMT) consistent with recent changes in the Hazardous Goods List of the 16th Revised Edition of the UN Model Regulations, the IMDG Code, and the...
Subpart C—Authorization and Requirements for the Use of International Transport Standards and Regulations

§171.22  **Authorization** and conditions for the use of international standards and regulations.
§171.23  Requirements for specific materials and packagings transported under the ICAO Technical Instructions, IMDG Code, Transport Canada TDG Regulations, or the IAEA Regulations.
§171.24  Additional requirements for the use of the ICAO Technical Instructions.
§171.25  Additional requirements for the use of the IMDG Code.
§171.26  Additional requirements for the use of the IAEA Regulations.
(a) Matter incorporated by reference—(1) General. There is incorporated, by reference in parts 170 through 189 of this subchapter, matter referred to that is not specifically set forth. This matter is hereby made a part of the regulations in parts 170 through 189 of this subchapter. The matter subject to change is incorporated only as it is in effect on the date of issuance of the regulation referring to that matter. The materials listed in paragraphs (b) through (ee) of this section have been approved for incorporation by reference by the Director of the FEDERAL REGISTER in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Material is incorporated as it exists on the date of the approval and a notice of any change in the material will be published in the FEDERAL REGISTER. Matters referenced by footnote are included as part of the regulations of this subchapter.


(1) Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), 2015-2016 Edition, copyright 2014, into §§171.8; 171.22; 171.23; 171.24; 172.101; 172.202; 172.401; 172.512; 172.519; 172.602; 173.56; 173.320; 175.10, 175.33; 178.3.
Two Goals When Offering Dangerous Goods Shipments

Compliance (Safety) & Acceptance (Commerce)

Change Leads to Confusion
Confusion Leads to Risk
SIGNIFICANT CHANGES AND AMENDMENTS TO THE 58TH EDITION (2017)

The 58th edition of the IATA Dangerous Goods Regulations incorporates all amendments made by the ICAO Dangerous Goods Panel in developing the content of the 2017-2018 edition of the ICAO Technical Instructions as well as changes adopted by the IATA Dangerous Goods Board. The following list is intended to assist the user to identify the main changes introduced in this edition and must not be considered an exhaustive listing. The changes have been prefaced by the section or subsection in which the change occurs.

1—Applicability

1.2.7.5—An exception has been added to address dangerous goods fitted on aircraft equipped for search and rescue to allow the dangerous goods to remain on the aircraft for other flights such as training and positioning flights.

1.2.8.2—A new paragraph has been added to clarify that dangerous goods accepted under the provisions of regulations in force at the time of acceptance by the initial operator can continue to destination even if the regulations applicable to the dangerous goods have changed while the dangerous goods are still in transport, e.g. dangerous goods accepted at the end of December can continue in transport in January even if new provisions affecting these dangerous goods have become effective as of 1 January.

1.4—Operator Responsibilities

The requirements related to the provision of information to passengers as set out in 1.4.3 have been completely revised to allow for operators to develop performance-based notification system to advise passengers that reflect the operator’s own capabilities and operation. The details of this notification system must be documented in the operator’s operations, or other applicable manual.

1.5—Training Requirements

1.5.1—Training Programmes” has been renamed “Dangerous Goods Training Programmes” and a new 1.5.1.2—Review and Approval has been added. The new paragraph replaces the existing 1.5.5—Approval.

1.6—Adequate Instruction

A new paragraph has been added that sets out what should be established by shippers of Section II lithium batteries to meet the conditions for “adequate instruction” of employees who are responsible for the preparation of packages of lithium batteries offered for air transport in accordance with Section II of the lithium battery packing instructions.

2—Limitations

2.6—Dangerous Goods in Excepted Quantities

2.6.5—The packing provisions have been revised to allow for the absorbent material to be either in the intermediate packaging, or the outer packaging for liquid dangerous goods.

2.8—Operator Variations

There are a number of additions, deletions and amendments to variations submitted by operators.

3—Classification

3.0.1.6—A new paragraph has been added to set out the provisions for where a shipper identifies, by testing, that a listed substance has a subsidiary hazard not identified in the list of dangerous goods. The new provision identifies that the shipper must with the approval of the appropriate national authority either use a “n.o.s.” entry or ship the substance under the listed entry with the addition of the subsidiary hazard.

3.1.8—Recommendations have been added that the competent authority responsible for the classification of explosives should provide in writing the details of the classification of explosives should provide in writing the details of the classification as specified.

3.2.6, 3.3.6, 3.6.1.9 and 3.6.4—New provisions have been added to address substances in Class 2, Class 3, Division 6.1 and Class 8, respectively, that may polymerize during normal conditions of transport.

3.4.1.4—Provisions have been added for the classification of polymerizing substances. The provisions are analogous to those for self-reactive substances.

3.6.2.6—The classification requirements for infected live animals have been revised.
APPENDIX B—NOMENCLATURE

B.2 Symbols and Abbreviations

B.2.1 Symbols

The following symbols have the meanings shown:

Symbol | Meaning
---|---
†—Indicates brief description in Appendix A. (Note: this symbol is not part of the proper shipping name).
★—The technical name or chemical group name(s) is required to be shown, in parentheses, following the proper shipping name. (Note: this symbol is not part of the proper shipping name).
★★—Indicates a more restrictive requirement than ICAO
Y—Prefix letter indicating a Limited Quantity Packing Instruction. Also used to indicate compliance with the air transport requirements in the limited quantities mark.
>—Greater than
≥—Equal to or greater than
<—Less than
≤—Equal to or less than
☐—Indicates addition of new item
△—Indicates change in this item
⊗—Indicates cancellation of item previously shown in this space (not implemented in electronic version)
▲—Indicates that the item relates entirely to Radioactive Shipments. Used in Subsection 2.8, State and operator variations and Appendix A—Glossary.
Technically not Authorized in 49 CFR

- Anything entirely new in ICAO 2017-2018. Ex:

4—Identification
4.2—List of Dangerous Goods
Amendments to the List of Dangerous Goods include:
- revision to a number of the entries for aerosols to consolidate all aerosols into packing instructions 203 and Y203;
- addition of special provision A209 against entries with “stabilized” in the proper shipping name;
- all entries of “engines” have been deleted from UN 3166. UN 3166 in Class 9 now only applies to the proper shipping names “vehicles”. Engines are now assigned to UN 3528—UN 3530 in Division 2.1, Class 9 or Class 8, based on the classification of the fuel that powers the engine. Also assigned to UN 3528—UN 3530 are proper shipping names for “machines”, which are also based on the classification of the fuel used to power the machinery;
- UN 3480, Lithium ion batteries has been amended to show “forbidden” across columns I/J to identify that these batteries are now restricted to Cargo Aircraft Only. This change became effective 1 April 2016 through an addendum to the 57th edition of the DGR. There is no change to the entries for UN 3481, lithium ion batteries packed with equipment or lithium ion batteries contained in equipment;
- all entries for lithium batteries, UN 3090, UN 3091, UN 3480 and UN 3481 have been revised to identify that the hazard label has changed to now be the lithium battery Class 9 label. A new Special Provision A208 has also been assigned to reinforce this new requirement;
- UN 3295, Polyester resin kit has been revised to add “liquid base material” as light type and a new entry “UN 3527, Polyester resin kit, solid base material” in Division 4.1 has been added to provide for polyester resin kits that have a Division 4.1 solid material as the base component;
- four new entries, UN 3531—UN 3534 have been added for polymerizing substances;
- the entries UN 2977, Radioactive material, uranium hexafluoride fissile and UN 2978, Radioactive material, uranium hexafluoride, non-fissile or fissile excepted have now been assigned a subsidiary risk of Division 6.1 in addition to Class 8;
- UN 3507, Uranium hexafluoride, radioactive material, excepted package, less than 0.1 kg per package, non-fissile or fissile excepted, has been revised to now be assigned to Division 6.1 with subsidiary risks of Class 7 and Class 8. The packing instruction assigned is now PI 603.
Technically not Authorized in 49 CFR

- Anything entirely new in ICAO 2017-2018. Ex:
Technically not Authorized in 49 CFR

- Anything entirely new in ICAO 2017-2018. Ex:

<table>
<thead>
<tr>
<th>UN/ID no.</th>
<th>Proper Shipping Name/Description</th>
<th>Class or Div. (Sub Risk)</th>
<th>Hazard Label(s)</th>
<th>PG</th>
<th>EQ see 2.6</th>
<th>Pkg Qty</th>
<th>Max Net Qty/Pkg</th>
<th>Pkg Qty</th>
<th>Max Net Qty/Pkg</th>
<th>Pkg Qty</th>
<th>Max Net Qty/Pkg</th>
<th>S.P. see 4.4</th>
<th>ERG Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>3481</td>
<td>Lithium ion batteries packed with equipment † (including lithium ion polymer batteries)</td>
<td>9</td>
<td>Miscellaneous Lithium batt</td>
<td>E0</td>
<td>Forbidden</td>
<td>966</td>
<td>5 kg</td>
<td>966</td>
<td>35 kg</td>
<td></td>
<td>9F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3090</td>
<td>Lithium metal batteries † (including lithium alloy batteries)</td>
<td>9</td>
<td>Miscellaneous Lithium batt</td>
<td>E0</td>
<td>Forbidden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9F-Z</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3091</td>
<td>Lithium metal batteries contained in equipment † (including lithium alloy batteries)</td>
<td>9</td>
<td>Miscellaneous Lithium batt</td>
<td>E0</td>
<td>Forbidden</td>
<td>970</td>
<td>5 kg</td>
<td>970</td>
<td>35 kg</td>
<td></td>
<td>9FZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3091</td>
<td>Lithium metal batteries packed with equipment † (including lithium alloy batteries)</td>
<td>9</td>
<td>Miscellaneous Lithium batt</td>
<td>E0</td>
<td>Forbidden</td>
<td>969</td>
<td>5 kg</td>
<td>969</td>
<td>35 kg</td>
<td></td>
<td>9FZ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PI 965—PI 970—Section IB of PI 965 and PI 968 and Section II of all of the lithium battery packing instructions have been revised to remove reference to the need for an additional document to accompany consignments of Section II lithium batteries. As of 1 January 2017 this document is no longer required. The lithium battery handling label, which is required on packages, has been replaced by a new lithium battery mark. The dimensions and colour of the new lithium battery mark are the same as for the lithium battery handling label, but all words have been removed and the UN number(s) is required to be applied. There is a 2-year transition period until 31 December 2018 to allow shippers to implement the lithium battery mark.

### 7.1.5.5 Lithium Batteries

**OPERATOR VARIATIONS:** 5X-07, CX-08, KA-08, LD-08

#### 7.1.5.5.1 Packages containing lithium cells or batteries prepared in accordance with Section II of Packing Instructions 965 to 970 and Section IB of Packing Instructions 965 and 968 must be marked as shown in Figure 7.1.C.

![Figure 7.1.C: Lithium Battery Mark (7.1.5.5)](image)

- **Name:** Lithium battery
- **Cargo IMP Code:** RLI, RLM
- **Minimum dimensions:** 100 × 100 mm
- **Symbol:** (seven vertical black stripes in upper half; battery group, one broken and emitting flame in lower half); black
- **Background:** White

#### 7.3.18.2 Class 9—Lithium Batteries

**FIGURE 7.3.X**

Class 9—Lithium Batteries

**A206** (384) The hazard label must conform to that shown in Figure 7.3.X. The Class 9 hazard label shown in Figure 7.3.W may continue to be used until 31 December 2018.
Technically not Authorized in 49 CFR

- Anything less restrictive in ICAO 2017-2018. Ex:

8—Documentation

8.1.6.9.1—A note has been added to identify that notwithstanding the change to the UN numbers and division/class for “engines”, that shippers may still consign engines as UN 3166 in Class 9 until 31 March 2017.

8.1.6.9.2—Clarification has been added on how the identification number for multiple overpacks should be shown.

8.1.6.9.4, Step 9—The list of special provision numbers that are required to be shown in the “authorisations” area of the Shipper’s Declaration has been revised.

8.1.6.11.7—The paragraph identifying that for shipments of lithium batteries prepared under Section IB of PI 965 and PI 968 that the information required on the additional document may be included on the Shipper’s Declaration or may be on an additional document has been deleted as the additional document is no longer required.
Technically Authorized in 49 CFR

• Anything more restrictive in ICAO 2017-2018. Ex:

  1—Applicability
  1.2.7.5—An exception has been added to address dangerous goods fitted on aircraft equipped for search and rescue to allow the dangerous goods to remain on the aircraft for other flights such as training and positioning flights.
  1.2.8.2—A new paragraph has been added to clarify that dangerous goods accepted under the provisions of regulations in force at the time of acceptance by the initial operator can continue to destination even if the regulations applicable to the dangerous goods have changed while the dangerous goods are still in transport, e.g. dangerous goods accepted at the end of December can continue in transport in January even if new provisions affecting these dangerous goods have become effective as of 1 January.

  1.4—Operator Responsibilities
  The requirements related to the provision of information to passengers as set out in 1.4.3 have been completely revised to allow for operators to develop performance-based notification system to advise passengers that reflect the operator's own capabilities and operation. The details of this notification system must be documented in the operator's operations, or other applicable manual.

  1.5—Training Requirements
  1.5.1—“Training Programmes” has been renamed “Dangerous Goods Training Programmes” and a new
  1.5.1.2—Review and Approval has been added. The new paragraph replaces the existing 1.5.5—Approval.

  1.6—Adequate Instruction
  A new paragraph has been added that sets out what should be established by shippers of Section II lithium batteries to meet the conditions for “adequate instruction” of employees who are responsible for the preparation of packages of lithium batteries offered for air transport in accordance with Section II of the lithium battery packing instructions.
1.6 Adequate Instruction for Shipping Section II Lithium Batteries

1.6.1 Section II of the lithium battery packing instructions, PI 965–PI 970, include a requirement that “Any person preparing or offering cells or batteries for transport must receive adequate instruction on these requirements commensurate with their responsibilities”. The packing instructions however do not define or describe what is considered as “adequate instruction”.

1.6.2 At a minimum, an employer should consider the following as being adequate instruction:

- Classification of lithium batteries being shipped.
- Documentation of procedures applied to lithium batteries being shipped.
- Written work instructions or other documentation, including automated controls.
- Review and understanding of documented procedures as applicable to the job function.
- Instruction records including date(s) for all employees.
- Refresher instructions provided at a minimum every two years or as the documented instructions are revised or regulations are changed.
- Reverse logistics, including transport mode and applicable prohibitions.
Technically Authorized in 49 CFR

- Anything more restrictive in ICAO 2017-2018. Ex:

PACKING INSTRUCTION 967

OPERATOR VARIATIONS: 2K-02, 3K-06, 4C-09, 4M-09, 5X-07, AC-06, AF-05, AI-08, AM-09, AR-11, AU-11, BM-01, BR-18, BZ-10, CX-08, D0-03, D5-03, ES-03, FX-05, G3-07, GS-03, HA-06, JJ-09, KA-08, KK-11, KQ-09, L7-09, LA-09, LD-08, LH-08, LP-09, LU-09, LX-06, MK-16, MN-05, OM-19, OS-01, OZ-10, PZ-09, QK-06, QY-03/05, RS-06, RV-08, TG-09, UA-05, UC-09, UH-11, VN-12, VO-01, WN-01, XG-08, XL-09, XQ-08

Introduction
This instruction applies to lithium ion or lithium polymer cells and batteries contained in equipment (UN 3481) on passenger and Cargo Aircraft Only.

Additional Requirements—Section II

Each package must be durably and legibly marked with the mark shown in 7.1.C. The package must be of such size that there is adequate space to affix the mark on one side of the package without the mark being folded. This requirement does not apply to:

- packages containing only button cell batteries installed in equipment (including circuit boards); or
- consignments of two packages or less where each package contains no more than four cells or two batteries installed in equipment.

PACKING INSTRUCTION 970

STATE VARIATION: USG-03

OPERATOR VARIATIONS: 2K-02, 3K-06, 4C-08, 4M-08, 5X-07, AC-06, AF-05, AI-08, AM-09, AR-11, AU-11, BM-01, BR-18/19, BT-01, BZ-10, C8-04, CV-04, CX-08, CZ-08, D0-03, D5-03, ES-03, EY-04, FX-05, G3-07, GF-14, GS-03, HA-05, HX-06, JJ-08, JU-11, KA-08, MK-11, MQ-09, L7-09, LA-09/16, LD-08, LH-08, LP-08, LU-08, LX-06, M3-08, M7-08, MK-16, OM-15, OZ-10, PZ-08, QK-06, QR-04, QY-03/05, RS-06, RU-02, RV-06, SQ-07, TG-08, TZ-06, UC-08, UH-11, VN-12, WN-01, WY-07, XG-08, XL-08, XQ-08

Introduction
This instruction applies to lithium metal or lithium alloy cells and batteries contained in equipment (UN 3091) on passenger and Cargo Aircraft Only.
Technically Authorized in 49 CFR

- Anything that is purely an IATA Standard. Ex:
  - IATA 57th 2016
  - IATA 58th 2017

8.1.6.13 Name and Title of Signatory
Enter the name and title of the person signing the declaration. This information may be printed or stamped.

Note:
The title of the person or the name of the department he/she is employed with, are both acceptable.

8.1.6.14 Place and Date
Enter the place and date of signing the declaration form.

Note:
The preferred format for indicating the date is YYYY-MM-DD. Other formats, such as DD/MM/YYYY, DD/MM/YYYY or written out completely, are acceptable provided they cannot be misunderstood.

8.1.6.13 Name of Signatory
The name of the person signing the declaration is mandatory and must be entered on the declaration. This information may be printed or stamped.

Note:
The title of the person signing the declaration is optional and may be left blank.

8.1.6.14 Date
The date of signing the declaration is mandatory and must be entered on the declaration.

Notes:
1. The place of signing the declaration is optional and may be left blank.
2. The preferred format for indicating the date is YYYY-MM-DD. Other formats, such as DD/MM/YYYY, DD/MM/YYYY or written out completely, are acceptable provided they cannot be misunderstood.

8.1.6.13 and 8.1.6.14—Have each been revised to remove the mandatory requirement for title of the signatory and the place that the Shipper’s Declaration was signed. This information may still be provided, but is no longer mandatory.
Change in Label Specifications as of 01JAN17
§172.407 Label specifications.

.....

(c) Size. (1) Each diamond (square-on-point) label prescribed in this subpart must be at least 100 mm (3.9 inches) on each side with each side having a solid line inner border 5.0 to 6.3 mm (0.2 to 0.25 inches) from the edge. The width of the solid line forming the inner border must be at least 2 mm.

Requirements of this paragraph in effect on December 31, 2014:

§ 172.407 Label specifications.

.....

(c) Size. (1) Each diamond (square-on-point) label prescribed in this subpart must be at least 100 mm (3.9 inches) on each side with each side having a solid line inner border 5.0 to 6.3 mm (0.2 to 0.25 inches) from the edge.
3.5 LABEL SPECIFICATIONS

ii) The label must be in the form of a square set at an angle of 45° (diamond shaped). The minimum dimensions must be 100 mm × 100 mm and the minimum width of the line inside the edge forming the diamond must be 2 mm. The line inside the edge must be parallel and 5 mm from the outside of that line to the edge of the label. The line inside the edge on the upper half of the label must be the same colour as the symbol, and the line inside the edge on the lower half of the label must be the same colour as the class or division number in the bottom corner. Where dimensions are not specified, all features must be in approximate proportion to those shown.

iii) Labels of 50 mm × 50 mm may be used on packages containing infectious substances where the packages are of dimensions such that they can only bear smaller labels. The line inside the edge must remain 5 mm to the edge of the label. The minimum width of the line inside the edge must remain 2 mm. Dimensions for labels on cylinders must comply with 3.5.1.1 b).

Note.— The provisions of 3.5.1.1 a) from the 2013-2014 Edition of these Instructions may continue to be applied until 31 December 2016. When so applied, 3.5.1.1 a) i), ii) and iii) need not apply until 1 January 2017.

ICAO 2017-2018 (Page 5-3-3) is identical except the Note is removed.
Training is Critical

Hazmat employee training must include:

– General awareness / familiarization training
– Function-specific training
– Safety training
– Security awareness training
– In-depth security training (when applicable)
Where can you get more information?

- Printed Regulations & Industry Publications: 49 CFR, ICAO, or IATA, Federal Register
- Internal Training Department
- Internet –
  [www.phmsa.dot.gov/hazmat](http://www.phmsa.dot.gov/hazmat)
  [www.icao.int/safety/DangerousGoods/Pages/default.aspx](http://www.icao.int/safety/DangerousGoods/Pages/default.aspx)
  [www.iata.org/whatwedo/cargo/dgr/Pages/index.aspx](http://www.iata.org/whatwedo/cargo/dgr/Pages/index.aspx)
- Telephone US DOT at (800) 467-4922
  Mon-Fri 9am-5pm (EST)
- Contact your FAA Regional Hazardous Materials Office
New York Hazardous Materials Field Office

<table>
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Questions?