

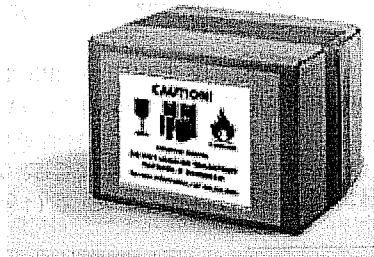
題名: DGR e-Newsletter
 日時: 2009/11/10 23:39:55 東京 (標準時)
 FROM: brennand@iata.org
[インターネットメール<ヘッダーを見る>](#)

If you wish to view this email in a web browser, [please click here](#)



DGR Newsletter

Edition 3, November 2009



Stay connected

To receive IATA e-news and information



Send to a colleague



More information

Welcome to the third edition of the IATA DGR e-newsletter

In this issue:

- Lithium battery packing instructions reformatted, according to IATA Dangerous Goods Regulations – 51st Edition, effective 1 January 2010. [Read more](#) (pdf)
- What's new in the DGR 51st Edition. [Read more](#) (pdf)
- Pilot study to replace the Shipper's Declaration for Dangerous Goods paper version with electronic data transmission. [Read more](#) (pdf)
- New regulations on transporting oxidizing gases and chemical oxygen generators by air to, from, through or within the US, effective 1 October 2009. [Read more](#) (pdf)

Your feedback is important to make this publication timely and relevant to you!
Please forward your suggestions for issues to cover or topics of interest to:

The Editor
Fax: +1 514 874 2660

Calendar of events

Meetings

- UN Subcommittee of Experts on the Transport of Dangerous Goods – 36th Session
30 November – 9 December 2009
Geneva, SWITZERLAND
- IATA Dangerous Goods Board (DGB/96)
11-12 March 2010
Vancouver, CANADA

Events

- [IATA World Cargo Symposium](#)
8-11 March 2010 Vancouver, CANADA

International Air Transport Association

800 Place Victoria, P.O. Box 113 Montreal, Quebec, Canada H4Z 1M1.

[About Us](#) | [Membership](#) | [Work Groups](#) | [Areas of Activity](#) | [Services & Solutions](#) | [Events](#) | [Training](#) | [Pressroom](#)

IMPORTANT PRIVACY INFORMATION: The International Air Transport Association (IATA) does not sell or rent your email address to any third party. You received this email message due to your membership, participation or interest in IATA. IATA sends various



Lithium Batteries – Packing Instructions Reformatted

Effective 1 January 2009, significant changes to the provisions applicable to all types of lithium batteries, including those packed with or contained in equipment, were introduced.

Changes are summarized as follows:

- revision of the proper shipping names for UN 3090 and UN 3091 to add "metal" to identify that these entries apply to lithium batteries containing metallic lithium, generally non-rechargeable (primary) batteries and adoption of new UN numbers (UN 3480 and UN 3481) and proper shipping names for lithium ion batteries and lithium ion batteries packed with, or contained in equipment;
- deletion of Special Provision A45, which set out requirements for small lithium batteries that could then be shipped as "not otherwise regulated", and incorporation of these requirements, with some changes, into Part 1 of the new packing instructions;
- revised per package quantity limits for these "not otherwise regulated" regulated batteries; and
- adoption of a new handling label to identify packages containing these "not otherwise regulated" batteries as well as, with some small exceptions, to lithium batteries when packed with equipment and those contained in equipment.

In developing the new packing instructions for the 2009 DGR it was thought appropriate to have the provisions applicable to the small lithium batteries that are "not otherwise regulated" at the start of each packing instruction under Part 1.

Part 2 of each packing instruction applies to the fully regulated batteries assigned to Class 9. Unfortunately, this format was different to that adopted by ICAO in the lithium battery packing instructions contained in the 2009-2010 edition of the Technical Instructions, which had the provisions for fully regulated batteries set out in Section I and those for the "not otherwise regulated" batteries in Section II.

While the provisions in the IATA DGR applicable to each type of battery are identical to those contained in the ICAO Technical Instructions, the difference in format has caused problems for users, particularly regulatory authorities who generally refer to the Technical Instructions.

For this reason, the format of the lithium battery packing instructions in the DGR 51st edition will move the provisions for the "not otherwise regulated" batteries to Section II and the provisions for the fully regulated batteries to Section I.

In addition, based on the significant number of questions from all segments of the supply chain, some small adjustments have been made to the lithium battery packing instructions. These changes more clearly set out the requirements and also add some operational requirements to better identify lithium battery consignments, which in turn should facilitate acceptance and transport.

The lithium battery packing instructions in the 51st edition are now set out in three main sections:

1. General requirements applicable to all batteries to which the packing instruction applies. These general requirements include the condition that all cells and batteries must have successfully passed the tests set out in the UN Manual of Tests and Criteria and also that any cell or battery being shipped due to recall for safety reasons or that is damaged, and which has the capacity to generate a dangerous evolution of heat, is forbidden for transport by air;
2. Section I fully regulated, Class 9, battery provisions; and
3. Section II excepted, small, battery provisions that once met, no other provisions of the Regulations apply. Within Section II there is now a clear statement to the effect that a Shipper's Declaration is not required and also that there must be a statement on the air waybill indicating that the batteries are "not restricted", the type of battery, i.e. lithium metal or lithium ion, and the packing instruction number.

View the new lithium battery packing instructions per the DGR 51st edition



What's New: IATA Dangerous Goods Regulations 51st Edition

The 51st edition of the IATA Dangerous Goods Regulations, now available, will take effect 1 January 2010. This edition consolidates changes introduced through ICAO's addendum to the 2009-2010 edition of the Technical Instructions, as well as those agreed to by the IATA Dangerous Goods Board.

Also included is an appendix listing the impending regulatory changes to take effect in 2011 with the publication of the 2011-2012 edition of the ICAO Technical Instructions and the 52nd edition of the DGR.

This article is aimed at giving you an understanding of the changes as well as some insight into the reasons for those changes.

Section 2 – Limitations

Two new provisions have been added to the items listed in Subsection 2.3: Dangerous Goods Carried by Passengers or Crew and Table 2.3.A

- **Carbon dioxide, solid (dry ice):** The provisions for carbon dioxide, solid have been clarified to identify that marking and the design of packages to permit the release of carbon dioxide gas applies to both checked and carry-on baggage.
- **Cigarette lighters:** A note has been added under the provisions permitting passengers to carry a cigarette lighter to identify that "Blue flame"; or "cigar" lighters are not permitted. These types of lighters produce a very intense, focused flame that is capable of cutting through metal. For that reason, these lighters will not be permitted for carriage.

Section 3 – Classification

3.1.4.3 Has been added to identify that certain explosives identified as Division 1.4S in the List of Dangerous Goods must successfully pass the new Test Series 6(d) as set out in Part I of the UN Manual of Tests and Criteria. This requirement applies to demonstrate that in the event the explosive article is initiated there is no hazardous effect outside the package.

Section 4 – Identification

4.1.3.1 – Classification and assignment of a proper shipping name for mixtures and solutions has been amended to indicate that a mixture or solution of a predominant substance may contain trace amounts of other dangerous goods and still be classified and assigned to the UN number and proper shipping name of the predominant substance.

In Subsection 4.2: List of Dangerous Goods, there are several revisions:

The format of Table 4.2 has been revised to remove the dashes from columns G and H when dangerous goods are not permitted in Limited Quantities and instead insert the word "Forbidden" across G/H as is done for columns I/J and K/L when substances or articles are forbidden on passenger aircraft and Cargo Aircraft Only.

Amendments to the List of Dangerous Goods include:

- the addition of special provision A165 assigned to:
 - UN 0323, **Cartridges, power device;**
 - UN 0366, **Detonators for ammunition;**
 - UN 0441, **Charges, shaped;**
 - UN 0445, **Charges, explosive, commercial;**
 - UN 0455, **Detonators, non-electric;**
 - UN 0456, **Detonators, electric;**
 - UN 0460, **Charges, bursting, plastics bonded;** and
 - UN 0500, **Detonator assemblies, non-electric**
- excepted quantity code E0 has been removed from all radioactive material in excepted package entries to avoid confusion. These entries are still not permitted as dangerous goods in excepted quantities, however the provisions for radioactive material, excepted package as set out in 10.3.11 do apply.

Section 4.4 – Special Provisions

- A130 – for radioactive material, excepted package that also meets the definitions and criteria of other classes or divisions as defined in Section 3, the substance must be classified in accordance with the requirements applicable to the other risk. An example for how this should be described on the Shipper's Declaration is shown in the special provision.
- A165 – against eight 1.4S explosives entries requires that for these items the new Test Series 6(d) as set out in Part I of the UN Manual of Tests and Criteria must be completed for transport aboard a passenger aircraft.

Section 5 – Packing

5.0.1.4 has a note added that identifies that before a packaging is re-used that the closure instructions from the manufacturer as required by 6.0.1.4 must be met.



Packing Instructions

- 650 – The wording for the information to be included on the Air Waybill has been revised to include the number of packages. This standardizes the information to be shown on the Air Waybill with that for dangerous goods in excepted quantities, dry ice, etc. that don't require a Shipper's Declaration.
- 965 – 970 – Based on the numerous questions on the transport of lithium batteries and lithium battery-powered equipment, the lithium battery packing instructions have been reformatted to more clearly set out the applicable requirements. The packing instructions are now set out into 3 main sections:
 1. General requirements applicable to all batteries to which the packing instruction applies;
 2. Section I fully regulated, Class 9, battery provisions; and
 3. Section II excepted, small, battery provisions that once met, no other provisions of the Regulations apply.

Section 6 – Packaging Specifications and Performance Tests

- 6.0.4.1 the note requiring the UN specification mark to be embossed or printed directly on a package has been amended to allow other forms of marking. A recommended practice to include contact information when the marks are not printed or embossed has also been added. Handwritten specification marks are still not permitted.

Section 7 – Marking and Labeling

- 7.1.4.2 has been clarified to show exactly which markings need to be on the outside of an overpack.
- 7.1.5.1(d) has been modified to clarify what is meant by "identical dangerous goods contents".
- 7.1.5.1(j) has been added to include the environmentally hazardous substance mark requirements.
- 7.1.6.3 has been modified to clarify when the marking requirements for packages containing environmentally hazardous substances, liquid or solid (UN 3077 or UN 3082) is not applicable. A note has been added to indicate that other regulations, e.g., International Maritime Dangerous Goods Code, may require the mark on packages containing substances other than UN 3077 and UN 3082.

Section 8 – Documentation

- 8.1 a new example, Figure 8.1.O, has been added, to show the appropriate method for describing a quantity of material that is a radioactive excepted package, that also meets the classification criteria of another class or division, as set out in Special Provision A130.

Section 10 – Radioactive Material

- 10.7.1.4 has been clarified to show exactly which markings need to be on the outside of an overpack containing radioactive material.
- 10.8.3.9.3 has been modified to show the required sequence for package dimensions (L)ength x (W)idth x (H)eight for packages categorized as II-Yellow or III-Yellow and the desired method has been added to example 10.8.E.

Appendix H – Impending Changes

The content of Appendix H in this edition includes all of the reformatted packing instructions that will come into effect 1 January 2011 for Classes 3, 4, 5, Division 6.1, Classes 8 and 9 as well as an indication of the other regulatory changes that will come into effect from 1 January 2011.

The regulatory changes indicated are based on the changes that have been agreed by the United Nations Subcommittee of Experts and that have been adopted into the 16th revised edition of the Recommendations on the transport of dangerous goods (Model Regulations) as well as those that have been agreed for adoption by the ICAO Dangerous Goods Panel into the 2011-2012 edition of the Technical Instructions.

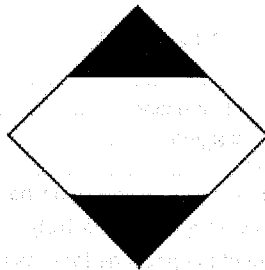
The contents of Appendix H include:

- **Training records.** The retention period for training records has been revised to require that the employer must retain records of dangerous goods training for a minimum of thirty-six months from the most recent training completion date.
- **Dangerous Goods in Operator's Property.** The provisions are revised in the 51st edition to specifically permit operators to have and use in the aircraft electronic devices such as credit card readers, personal entertainment systems and electronic flight bags containing lithium batteries and also spare lithium batteries for these devices, provided the batteries do not exceed 2 g for lithium metal batteries or 100 Wh for lithium ion batteries.

The operator must establish and document conditions for the carriage use of the devices and for the spare batteries in the operator's operations and/or other appropriate manuals. Any transport of spare electronic devices containing lithium batteries or of spare lithium batteries must be in accordance with the applicable provisions of the DGR.

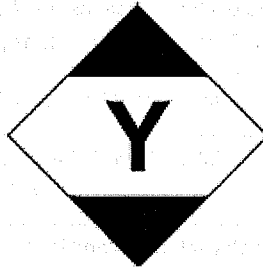


- 7 **Dangerous Goods in Limited Quantities.** The 16th revised edition of the UN Model Regulations has revised provisions for the transport of dangerous goods packed in limited quantities. For the surface transport modes, road, rail and maritime, there will be a new marking that will be applied to packages containing dangerous goods packed according to the limited quantity provisions. The mark will be as shown below and will replace the existing marking that applies to limited quantities when shipped by surface modes of transport. The size of the marking is 100 mm x 100 mm (4"x 4"), except where the package is too small to bear the full size mark where the mark may be reduced to 50 mm x 50 mm (2"x 2").



Marking for packages containing limited quantities (surface transport)

Air transport will adopt the same mark, except that the center of the mark will contain the symbol "Y". This mark will replace the current "limited quantity" or "LTD QTY" marking that must be applied to limited quantity packages. The current requirement for the full marking of the UN number and proper shipping name and the application of hazard labels on the package will still apply for air transport. The size of the air transport limited quantity mark is the same as for surface transport.



Marking for packages containing limited quantities (air transport)

- 7 **List of Dangerous Goods.** There will be a number of new UN number/proper shipping-name entries that will come into effect from 1 January 2011. These include new UN numbers and/or proper shipping names for:
- **Alkali metal dispersion, flammable, Alkaline earth metal dispersion, flammable (UN 3482).** The new UN number is introduced to specifically provide for formulations that pose a flammable subsidiary risk. Associated with introduction of these two entries, the current special provision A147 has been changed to not used. A147 is currently assigned against UN 1391, **Alkali metal dispersion** and **Alkaline earth metal dispersion**, which requires that substances with a flash point of 60°C or less must be shown with a Class 3 subsidiary risk.
 - **Calcium hypochlorite, dry, corrosive** and **Calcium hypochlorite mixture, dry, corrosive**, with > 39% available chlorine (8.8% available oxygen) (**UN 3485**), **Calcium hypochlorite mixture, dry, corrosive**, with > 10% but ≤ 39% available chlorine (**UN 3486**), and **Calcium hypochlorite hydrated, corrosive** and **Calcium hypochlorite hydrated mixture, corrosive**, with ≥ 5.5% but ≤ 16% water (**UN 3487**). The new UN numbers are introduced to specifically provide for formulations that pose a corrosive subsidiary risk. Associated with introduction of these entries, the current special provision A135 has been changed to not used. A135 is currently assigned against **UN 1748, Calcium hypochlorite, dry** and **Calcium hypochlorite mixture, dry**, with >39% available chlorine (8.8% available oxygen), **UN 2208, Calcium hypochlorite mixture, dry**, with > 10% but ≤ 39% available chlorine and **Calcium hypochlorite hydrated** and **UN 2880, Calcium hypochlorite hydrated mixture**, with ≥ 5.5% but ≤ 16% water, which requires that substances meeting the criteria of a corrosive substance must be shown with a Class 8 subsidiary risk.
 - **Engine, fuel cell, flammable gas powered, Engine, fuel cell, flammable liquid powered, Vehicle, fuel cell, flammable gas powered and Vehicle, fuel cell, flammable liquid powered (UN 3166).** The emerging fuel cell technologies, particularly for use in motor vehicles, have created the need for additional entries to the list of dangerous goods.



- **Special Provisions.** There will be a number of new and amended special provisions that will come into effect from 1 January 2011. These include:
- A44 has been revised to show that the packing group assigned to the kit as a whole must be the most stringent packing group assigned to any individual substance contained in the kit and that packing group must be shown on the shipper's declaration for dangerous goods. This incorporates the provisions of special provision A802, which becomes "Not Used" in 2011.
 - A130 has been further revised to clarify that radioactive material in excepted package with a subsidiary risk must be assigned based on the quantity of material. When the substance meets the criteria for dangerous goods in excepted quantity, the substance is shipped in packages meeting the requirements of 2.7.6. All other requirements of 10.0.1.5 must be met, without reference to the other class. When the substance does not meet the criteria for dangerous goods in excepted quantity it must be classified according to the predominant subsidiary risk.
 - A144 has been revised to show that if the conditions of A144 are met for Protective Breathing Equipment (PBE), then the requirements of Special Provision A1 do not apply.
 - A167 – A173 are new special provisions that apply to Ammonium bromates, chlorates, chlorites and permanganates and further define those entries.
- **Packing Instructions.** New packing instructions will be assigned to the entries for Chlorosilanes. As well, a number of the existing packing instructions will be revised. These include:
- PI 377. Will apply to chlorosilanes, liquid, flammable, corrosive in Packing Group II. This new packing instruction aligns with the UN Model Regulations and addresses the particular properties of chlorosilanes.
 - PI 681. Will apply to chlorosilanes, liquid, toxic. This new packing instruction aligns with the UN Model Regulations and addresses the particular properties of chlorosilanes.
 - PI 876. Will apply to chlorosilanes, liquid, corrosive on Cargo Aircraft Only. This new packing instruction aligns with the UN Model Regulations and addresses the particular properties of chlorosilanes.
 - PI Y963. Will apply to ID8000. This means that ID8000, Consumer Commodity is now a limited quantity packing instruction, allowing it to be moved more harmoniously on all modes of transport. It also means that packages conforming to this packing instruction will need to bear the new limited quantity marking.



IATA e-freight Pilot Project – Paperless Transport of Dangerous Goods

Effective 1 January 2009 the ICAO Technical Instructions and the 50th Edition of the IATA DGR implemented provisions that allow the use of electronic data transmission techniques in lieu of a paper document for the information required on the Shipper's Declaration for Dangerous Goods, (see DGR 8.0.2).

As part of the IATA e-freight project, a task force comprised of experts from the entire dangerous goods supply chain, including shippers, airlines, freight forwarders, vessel operators, ground handling agents, solutions providers and the UN Dangerous Goods Transport Secretariat was established to develop standards to permit the implementation of the e-Shipper's Declaration.

The task force started by identifying and documenting all of the data elements required by the regulations applicable to the various transport modes. Based on the required data elements, an XML (eXtensible Markup Language) schema has been created that contains provision for all of the required data elements to allow for the transmission of dangerous goods transport information.

The next step will be a proof of concept trial involving shippers, freight forwarders, ground handling agents and airlines to demonstrate the feasibility of using electronic data transmission to provide the information required on the Shipper's Declaration in place of a paper document.

The proof of concept will involve live shipments on existing e-freight trade lanes with existing e-freight partners and is scheduled to commence in December 2009.



New United States Regulations – Oxidizing Gases and Chemical Oxygen Generators

Effective 1 October 2009, the United States Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) implemented changes to the US Hazardous Materials (dangerous goods) Regulations, Code of Federal Regulations, Title 49 that requires enhanced packaging for Division 2.2 gases with a subsidiary risk of Division 5.1 and for UN 3356, **Oxygen generator, chemical** when these are transported by air.

The enhanced packaging for the oxidizing gases and chemical oxygen generators must be capable of withstanding specified flame penetration and thermal resistance requirements.

The requirement for the enhanced packaging applies to all transport of these substances and articles on any aircraft operating to, from, through or within the US, and to any US-registered airline operating anywhere in the world.

PLACARD	SYMBOL	HAZARD CLASS	HAZARD LABEL	HAZARD CODE	HAZARD CLASSIFICATION	HAZARD CLASSIFICATION
OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS
OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS
OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS
OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS
OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS	OXIDIZING GAS

Additional Information on Oxidizing Gases and Chemical Oxygen Generators

When transporting oxidizing gases and chemical oxygen generators, the following requirements apply:

- The packaging must be capable of withstanding specified flame penetration and thermal resistance requirements.
- The requirement for the enhanced packaging applies to all transport of these substances and articles on any aircraft operating to, from, through or within the US, and to any US-registered airline operating anywhere in the world.

For more information on the new regulations, please refer to the relevant sections of the IATA Dangerous Goods Regulations (DGR) and the IATA Technical Instructions (TI). The IATA DGR and TI are available on the IATA website at www.iata.org.