

SIGNIFICANT CHANGES AND AMENDMENTS TO THE 54TH EDITION (2013)

The 54th edition of the IATA *Dangerous Goods Regulations* incorporates all amendments made by the Dangerous Goods Board and includes changes to the 2013–2014 edition of the ICAO *Technical Instructions*. 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.

Dangerous Goods Transported by Helicopters—Provisions have been added to the Regulations, where applicable, to address specific requirements or differences for the transport of dangerous goods by helicopter.

Front Matter

A Record of Addendum table has been added to page xvii to provide a method for users of the printed manuals to record the receipt and incorporation of any addendum to the current edition.

1—Applicability

1.2—Application of these Regulations

The provisions applicable to Approvals and Exemptions have been revised.

1.2.9—Application of Standards. A new paragraph has been added to clarify that if there is a conflict, the provisions of the Regulations take precedence over that in any standards referred to.

1.5—Training Requirements

Specific provisions, including a new Table 1.5.C, have been added to address the dangerous goods training requirements applicable to staff of designated postal operators.

1.5.6—The provisions applicable to instructor qualifications have been enhanced.

1.6—Dangerous Goods Security

The recommendations on dangerous goods security have been revised to reflect changes to the determination of high consequence dangerous goods for radioactive materials.

1.7—Incident and Accident Reporting

A new paragraph has been added recommending that entities other than operators report dangerous goods incidents or accidents and undeclared or misdeclared dangerous goods identified while in their possession.

2—Limitations

2.3—Dangerous Goods Carried by Passengers or Crew

There have been extensive changes and additions to the provisions for dangerous goods permitted in passenger and crew member baggage. These include:

- revision to the provisions for battery-powered mobility aids to make provision for lightweight mobility aids that are designed to be collapsible and have the battery removed;
- clarification that small cartridges containing a Division 2.2 gas may be carried in checked or carry-on baggage;
- revision to allow all permitted types of fuel cell cartridges in checked baggage;
- allowance for non-spillable batteries in equipment in baggage, subject to limitations on the size of the battery.

2.4—Transport of Dangerous Goods by Post

The types of dangerous goods permitted in international air mail have been expanded to permit small lithium batteries when contained in equipment. The ability of a postal operator to accept lithium batteries in the mail is subject to specific approval by the civil aviation authority.

2.5—Dangerous Goods in Operator's Property

The allowances for consumer goods have been revised to delete safety matches and add in allowance for portable electronic devices containing lithium batteries.

2.6.10—De Minimis Quantities. New provisions have been added to address transport of very small quantities of certain dangerous goods.

3—Classification

3.1.7.4—New test criteria have been added to determine when articles may be excluded from Class 1.

3.3.3—The provisions applicable to viscous flammable liquids have been revised and clarified.

3.6.2.2.3—New provisions have been added to address the transport of uncleaned medical devices/equipment.

3.9.2.6—Provisions have been added to identify the requirements for lithium batteries, including requirements for manufacturers to have a quality management system.

4—Identification

4.2—List of Dangerous Goods

Amendments to the List of Dangerous Goods include:

- addition of a new entry for electric double-layer capacitors, UN 3499;
- an additional proper shipping name, Cartridges for tools, blank has been added to UN 0014;
- six new entries have been added for chemicals under pressure, UN 3500—UN 3505 in Division 2.1 and Division 2.2;
- all of the references to “G” indicating gross weight in columns J and L have been deleted. This is associated with the revision to the definition of net quantity, see Appendix A changes. A small number of limited quantity entries will still retain the 30 kg G limitation;
- all chlorosilanes with a Class 8 subsidiary risk are now restricted to Cargo Aircraft Only;
- UN 2809, Mercury has been assigned a toxic subsidiary risk. Associated with this change, Mercury in manufactured articles has been assigned to UN 3506.

4.4—Special Provisions

A number of special provisions that include provisions for certain substances and articles to be “not subject to these Regulations” have been revised to limit the application to when the substances or articles are carried as cargo, see A32, A41, A47, A67, A69, A70, A98 and A129.

A21—applicable to battery-powered equipment and battery-powered vehicles has been revised to better identify which items are considered as “vehicles” and to then specify that equipment powered by lithium batteries must be assigned to the applicable lithium battery entry.

A51—which permits aircraft batteries to be shipped on a passenger aircraft above the normal net quantity permitted on passenger aircraft has been revised to include provision for lithium ion aircraft batteries under UN 3480.

A69—has been revised to reflect changes to mercury in manufactured articles.

A70—has been revised to more clearly identify under what conditions engines may be considered as “not restricted”.

A146—applicable to fuel cell cartridges, including when contained in, or packed with equipment has been revised to then specify that when lithium batteries are contained in the fuel cell system then the article must be assigned to the applicable lithium battery entry.

A184—is a new special provision applicable to fuel cell cartridges, including when contained in, or packed with equipment to then specify that when lithium batteries are contained in the fuel cell system then the article must be assigned to the applicable lithium battery entry.

A185—which is assigned against the entries for lithium batteries contained in equipment (UN 3901 and UN 3481) specifies that vehicles powered only by lithium ion or lithium metal batteries must be assigned to UN 3171, Battery-powered vehicle.

A186—is a new special provision to address the requirements for electric double layer capacitors.

A187—identifies the classification requirements for the new entries for chemical under pressure, UN 3500 to UN 3505.

A188—is intended to clarify the correct assignment of UN number/proper shipping name for nitroglycerin solution in alcohol.

A189—clarifies the requirements for formaldehyde solutions with less than 25% formaldehyde.

A190—provides an allowance for neutron radiation detectors which contain boron trifluoride, normally forbidden/forbidden, to be shipped on a cargo aircraft provided the provisions of A190 are met. A190 provides for the transport of these radiation detectors containing no more than 1 g of boron trifluoride to be shipped as cargo as not restricted.

A191—provides for an exception to the requirement for manufactured articles containing mercury to have to show the Division 6.1 subsidiary risk on the Shipper's Declaration and for the packages to have to bear a Toxic hazard label.

5—Packing

Packing Instructions

Almost all of the packing instructions have been revised to include closed head drums (1A1, 1B1, 1H1 and 1N1) and/or other metal boxes (4N) as outer packagings.

218—is the new packing instruction to address the new chemical under pressure entries (UN 3500 to UN 3505).

The absorbent material requirements in Packing Instructions 350, 351, 360, 361, 373, Y373, 493, 494, 553, 651, 652, 657, 658, 680, 850 and 854 have been revised to require sufficient absorbent material to absorb the entire contents of the inner packagings.

370 and **Y370**—have been revised to include provisions for a base material in Packing Group III, which has a higher net quantity. There is no change to the permitted quantity of organic peroxide.

Y373, **Y680** and **Y840**—have been revised to add in additional packing requirements for glass inner packagings to be packed with sufficient absorbent material to absorb the entire contents of the inner packagings and placed in a rigid leakproof receptacle before being packed in the outer packaging.

377 and **681**—have been revised to reflect that the chlorosilanes assigned to these packing instructions are now not permitted on passenger aircraft.

869—which applies to mercury contained in manufactured articles has been completely revised.

955—a provision has been added to permit packages containing life-saving appliances, which contain no dangerous goods other than a Division 2.2 gas for inflation purposes, to be shipped in strong outer packagings up to a maximum weight of 40 kg gross as cargo and to be considered as not restricted.

965 and **968**—the packing instructions applicable to lithium ion and lithium metal batteries have been revised to limit the quantity of lithium batteries that may be placed in a package under the provisions of Section II. A new Section IB has been added to these packing instructions that permit small lithium batteries meeting the general requirements of Section II to continue to be shipped in non-UN specification packagings up to a total package weight of 10 kg. Shipments prepared according to Section IB are subject to all of the applicable requirements of these Regulations, including that for dangerous goods training. Section IB shipments do not require the full Shipper's Declaration but do require an abbreviated document or information on the air waybill as indicated in the packing instructions. Section I of these packing instructions has been revised to become Section IA. The package limits specified in Section IA have been revised to become net quantity per package rather than gross weight.

966 and **969**—the packing instructions applicable to lithium ion and lithium metal batteries packed with equipment have been revised to clearly apply a limit on the net quantity (weight) of lithium batteries that may be placed in a package under the provisions of both Section I and Section II. The limit for Section I is 5 kg net on a passenger aircraft and 35 kg net on a cargo aircraft. For Section II the limit is 5 kg net per package for both passenger and cargo aircraft.

967 and **970**—the packing instructions applicable to lithium ion and lithium metal batteries contained in equipment have been revised to clearly apply a limit on the net quantity (weight) of lithium batteries that may be placed in a package under the provisions of both Section I and Section II. The limit for Section I is 5 kg net on a passenger aircraft and 35 kg net on a cargo aircraft. For Section II the limit is 5 kg net per package for both passenger and cargo aircraft.

971—is a new packing instruction that has been added for UN 3499, Capacitor.

7—Marking & Labelling

7.1.5.1—Reference has been included in 7.1.5.1(a) to identify the minimum size of the marking of the UN number on packages as specified in 7.1.5.5.

7.1.5.5—Has been revised to identify that from 2013 the marking of the UN number on packages should be of a minimum size. This minimum size will become mandatory with effect 1 January 2014.

7.2.4.7—Has been revised to include reference that packages containing lithium batteries shipped in accordance with Section IB of Packing Instruction 965 or 968 must bear both the lithium battery handling label and the Class 9 hazard label.

8—Documentation

8.0.1—A new paragraph has been added to clearly identify dangerous goods that can be described on documentation, such as an air waybill, rather than on a Shipper's Declaration.

8.1.6.9.2, Step 6—Has been revised to remove reference to the use of "G" except for certain dangerous goods shipped in limited quantities.

8.1.6.11—A new paragraph has been added to identify the requirements that now apply for additional information to be provided on the Shipper's Declaration for fireworks.

9—Handling

9.2.3—New text has been added to reinforce that marks and labels on packagings required by these Regulations must not be covered or obscured by any other label or marking.

9.3.4—Additional text has been added to address the carriage of Cargo Aircraft Only dangerous goods by helicopters. The exceptions for certain classes/divisions of dangerous goods to have be accessible or loaded in a Class C compartment have been revised to clarify the application for goods with a subsidiary risk.

9.5.1.1—The provisions applicable to notification to the pilot-in-command have been revised, as follows:

- the NOTOC must be provided prior to aircraft push-back or taxi;
- new requirements have been included to specify that the information on the NOTOC must be provided to the personnel responsible for operational control, e.g. the airline operations control centre. This requirement becomes mandatory as from 1 January 2014;
- provision for an alternative means of compliance for the NOTOC for helicopter operations are permitted with approval of the State of the operator;
- provision has been made for information on the NOTOC applicable to lithium batteries (UN 3090 and UN 3480) to be consolidated and abbreviated;
- a table has been added to clearly identify those dangerous goods that are not required to be shown on the NOTOC.

9.6.4—New reporting requirements have been added for dangerous goods occurrences.

9.8.2—A recommendation has been added that operators should retain documentation, including the acceptance checklist for dangerous goods consignments that were not accepted due to packaging, documentation or other errors.

9.9—Additional specific text has been added for helicopter operations.

Appendix A—Glossary

There are a number of changes and additions to the defined terms in the glossary. These include:

- addition of "external carriage" for helicopter operations;
- revision to the definitions of "lithium battery" and "lithium cell";
- revision to the definition of "net quantity". This was done to address articles such as wet cell and lithium batteries where previously gross weight applied;
- addition of a definition for "State of destination" and modification to "State of origin".

Appendix C—There are additions and amendments to the list of organic peroxides.

Appendix D—Contact details for competent authorities have been updated.

Appendix E—Changes have been made to the list of UN Specification Packaging Suppliers (E.1) and the Package Testing Facilities (E.2).

Appendix F—The list of Sales Agents (F.2), IATA Accredited Training Schools (F.3—F.5) and IATA Authorised Training Centres (F.6) have been revised.