



ICAO / IATA Changes

2017 Work Plan – ICAO DGP & IATA DGB

➤ IATA DGB:

- complete changes to 2018 DGR
- develop proposals for ICAO DGP/26

➤ ICAO DGP/26:

- UN alignment revisions
- DGP proposals
- lithium batteries
- competency-based dangerous goods training

To Start

- The 2 mm line has been removed!



IATA DGR Changes

➤ Lithium batteries

- Prohibition on packing lithium batteries (UN 3090 & UN 3480) in same outer packaging with flammable dangerous goods;
- Prohibition on placing packages of lithium batteries (UN 3090 & UN 3480) in an overpack with packages containing flammable dangerous goods;
- Revision to Table 9.3.A to bring in segregation of packages & overpacks containing lithium batteries (UN 3090 & UN 3480) from packages & overpacks containing flammable dangerous goods.

ICAO Dangerous Goods Panel (DGP/26)

➤ **UN Harmonisation Changes**

- General – “risk” becomes “hazard”, e.g. subsidiary hazard
- Dangerous goods security – recommendation on use of international standard for security marks on explosives

Classification

➤ **Class 8 - Corrosives**

- Closer alignment to the GHS, while still providing for assignment of packing groups
- Revised definition “... will cause irreversible damage to the skin, ...”
- Introduction of methods for assignment of packing groups to mixtures:
 - test data available – apply existing criteria;
 - data for similar mixtures – apply bridging principles;
 - data for individual ingredients – apply calculation method.

Classification (cont.)

➤ **Lithium batteries**

- Provision for hybrid lithium batteries that contain both lithium metal cells and lithium ion cells not designed to be externally recharged;
- Requirement for manufacturers and subsequent distributors of cells or batteries to make available the test summary as specified in the *UN Manual of Tests and Criteria*.



Lithium cell or battery test summary in accordance with sub-section 38.3 of Manual of Tests and Criteria

The following information shall be provided in this test summary:

- (a) Name of cell, battery, or product manufacturer, as applicable;
- (b) Cell, battery, or product manufacturer's contact information to include address, phone number, email address and website for more information;
- (c) Name of the test laboratory to include address, phone number, email address and website for more information;
- (d) A unique test report identification number;
- (e) Date of test report;
- (f) Description of cell or battery to include at a minimum:
 - (i) Lithium ion or lithium metal cell or battery;
 - (ii) Mass;
 - (iii) Watt-hour rating, or lithium content;
 - (iv) Physical description of the cell/battery; and
 - (v) Model numbers.
- (g) List of tests conducted and results (i.e., pass/fail);
- (h) Reference to assembled battery testing requirements, if applicable (i.e., 38.3.3 (f) and 38.3.3 (g));
- (i) Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto, if any; and
- (j) Signature with name and title of signatory as an indication of the validity of information provided.

Classification (cont.)

- **Samples of energetic materials for testing**
 - Organic substances listed in Appendix 6 of UN *Manual of Tests and Criteria*;
 - Must be assigned to UN 3223 or UN 3224 subject to specific conditions and packed as per PI 459.

Classification (cont.)

- **Articles containing dangerous goods, n.o.s.**
 - Classification provisions for articles not listed in the Technical Instructions where the quantity of dangerous goods exceeds UN 3363 SP 301 allowance
 - UN number assigned based on the hazard, primary & subsidiary of dangerous goods contained in the article
 - Initial recommendation of the DGP is that these articles may only be consigned on a cargo aircraft under an approval from State of Origin and State of the Operator (A2).

Dangerous Goods List

➤ New UN Numbers:

- UN 3535 **Toxic solid, flammable, inorganic, n.o.s., 6.1 (4.1)**
- UN 3536 **Lithium batteries installed in cargo transport unit, 9**
- UN 3537 **Articles containing flammable gas, n.o.s., 2.1**
to
UN 3548 **Articles containing miscellaneous dangerous goods, n.o.s., 9**
Does not apply to Class 1, Division 6.2 or Class 7

List of Dangerous Goods

↗ Revisions to entries:

↗ UN 3316 **Chemical kit** and **First aid kit**

- ↗ packing groups removed from table. Assigned by the shipper based on most restrictive packing group assigned to contents.

Special Provisions

- **A21, A134, A203 and A207** which apply to vehicles “not used”.
Replaced by a new **A214**
- **A79 and A90** revised, **A89** – “not used”. Ammonium nitrate fertilizers – must be classified in accordance with UN *Manual of Tests and Criteria*

Packing Instructions - Gases

- **PI 200** – Compressed, dissolved and liquefied gases
 - “liquid component” changed to be “liquefied gas” with respect to calculation of vapour pressure for liquids charged with compressed gas.

- **PI 218** – Chemicals under pressure
 - “liquid component” changed to be “liquefied gas” with respect to calculation of vapour pressure for liquids charged with compressed gas.

Packing Instructions

- **PI 459** – Self-reactive substances and polymerizing substances
 - New provisions added for “very small amounts” ≤ 20 mL / 20 g and “small amounts” ≤ 56 mL / 56 g of energetic samples assigned to UN 3223 or UN 3224.
- **PI 620** – Infectious substances, Category A
 - Pressure differential, 95 kPa, and temperature, -40°C to $+55^{\circ}\text{C}$, capabilities have been separated.
- **PI 961** – Safety devices (airbags, seat-belt pretensioners)
 - Clarification on the movement of dedicated handling devices, which may be to, from or between point of manufacture and of assembly, including intermediate handling locations.

Changes Developed by the DGP

- **Annex 18** – Application of requirement for dangerous goods training
 - Technical Instructions mandate dangerous goods for listed persons, which includes employees of freight forwarders processing and/or handling “cargo”. Opinion from ICAO Legal was that this was out of scope of Annex 18.
 - Proposal agreed to adopt into Annex 18 the list of organisations, that includes freight forwarders, that must establish and maintain a dangerous goods training program for all persons who handle cargo.
 - Still to be ratified by the Air Navigation Commission.

Changes to the Technical Instructions

➤ **Part 1 – General**

➤ Avalanche control activity. Revision to 1;1.1.5.1 c) and new d)



Dangerous Goods List and Special Provisions

➤ **Dangerous Goods List**

➤ Special Provision A67 deleted from UN 3166, UN 3528 and UN 3529. Raised with UN that A67 (UN SP 238) should be assigned to UN 3171.

➤ **Special Provisions**

➤ In development, revision to A107 for UN 3363 to address where the quantity of dangerous goods in an article exceeds limits of PI 962, but meets the allowance in the UN Model Regulations (dangerous goods permitted in LQ within the limits of column 7a).

Packing Instructions

➤ **PI 952 – Battery-powered vehicle**

➤ Text adopted for lithium battery powered vehicles that requires that if the battery is removed but packed with the vehicle that it is now UN 3091 or UN 3481, as applicable.

➤ **PI 958 – Asbestos, chrysotile**

➤ Misalignment with UN Model Regulations identified. Revisions in development to allow for combination packagings and particular packing requirements.

Operator's Responsibilities

➤ Segregation Requirements

- Agreement to except UN 3528, engines and machines powered by a flammable liquid from the segregation requirements that apply to dangerous goods in Class 3 and Division 5.1.

Passenger Provisions

➤ **Table 8-1**

➤ Proposal to restructure table by grouping based on hazard rather than individual items, e.g. devices with compressed gas cartridges, in place of separate entry for self-inflating safety devices and avalanche rescue backpacks. Still in development.

➤ **Battery-powered Mobility Aids**

➤ Proposed to merge all battery types into one entry. Remove “collapsible” to be replaced with text that considers the protection of the battery from damage by the design of the mobility aid. Separate passenger requirements from operator requirements. Still in development.

Lithium Batteries

➤ Packing Instructions 965 and 968:

- Section IA and IB prohibition on packing lithium cells and batteries in the same outer packaging with flammable dangerous goods (Class 1, Division 2.1, Class 3, Divisions 4.1 and 5.1).
- Section II prohibition on packing lithium cells and batteries in the same outer packaging with other dangerous goods.
- Sections IA, IB and II prohibition on placing packages in an overpack with flammable dangerous goods.



Lithium Batteries

➤ **Operator's Responsibilities**

- Revision to Table 7-1 and Part 7;2.2.1 to require segregation of packages and overpacks containing UN 3090 or UN 3480 from packages or overpacks containing flammable dangerous goods (Class 1, Division 2.1, Class 3, Divisions 4.1 and 5.1) when loaded into a ULD or cargo compartment.

Competency-Based Dangerous Goods Training

- **Responses to Survey of States and Industry**
 - Significant support from those States and industry that responded.
But request for more guidance on implementation.
- **Training Working Group Meeting 17 – 21 July**
 - Developed some additional guidance material.
 - Developed framework for well-defined functions, e.g. shipper, dangerous goods acceptance, flight crew.
 - Recommendation for a 2-year transition from 1 January 2019.
 - Paper to DGP/26.

Thank you

David BRENNAN

Asst. Director Cargo Safety &
Standards

Tel: + 41 (0) 22 770 2947

Email: brennand@iata.org

Email: dangood@iata.org

