

## ICAO Amendments

## Major changes of the Technical Instructions

## Edition 2019-2020

Effective 1 January 2019

# Part 1. General Revision to general provisions:

TI Reference	Detail	Concerned Party
	Replacement of references "risk" with "hazard" where appropriate.	all
1;1.1.5.1	Revision to general exception for dangerous goods used in connection with avalanche control activities.	Operator Shipper Freight Forwarder
1;2.3.4	Clarification of requirement for designated postal operators to receive specific approval from civil aviation authorities before introducing the acceptance of lithium batteries.	Postal Operators
1;3	Revision of definitions for animal material, dangerous goods, GHS, liquids and Manual of Tests and Criteria.	all
1;5	Addition of guidance for explosives security marks.	all

#### Part 2. Classification of Dangerous Goods Revision to classification criteria:

TI Reference	Detail	Concerned Party
2;0.2.7 and Table 2-1	Simplification of provisions for dangerous goods not listed by name in Table 3-1 which meet the defining criteria of more than one hazard class or division.	Shipper
2;0.5.4	Addition of provisions for samples of energetic materials classified as Division 4.1 for testing purposes.	Shipper
2;0.4, 2;0.6	Addition of provisions for classification of articles containing dangerous goods n.o.s.	Shipper
Table 2-6	Addition of new entry in the list of currently assigned self-reactive substances in packagings.	all
2;5.2.1.2, SP´s A79, A89 and A90	Clarification of classification criteria for ammonium nitrate based fertilizers.	Shipper
Table 2-7	Addition of new entries in list of currently assigned organic peroxides in packagings.	all
2;6.3.6.2	Revision to classification criteria infected animals.	Shipper
2;8	Revisions to classification criteria for Class 8 – Corrosive substances.	Shipper
2:9.3f), SP A213	Addition of new classification criteria for lithium batteries containing both primary lithium metal cells and rechargeable lithium ion cells.	Shipper

Part 3. Dangerous Goods List, Special Provisions and Limited and Excepted Quantities
Addition of new entries in Table 3-1:

TI Reference	Detail	
Table 3-1	Addition of new entries: UN 3535, Toxic solid, flammable, inorganic, n.o.s.*; UN 3536, Lithium batteries installed in cargo transport unit; UN 3537, Articles containing flammable gas, n.o.s*; UN 3538, Articles containing non-flammable, non toxic gas, n.o.s.* UN 3539, Articles containing toxic gas, n.o.s*; UN 3540, Articles containing flammable liquid, n.o.s*; UN 3541, Articles containing flammable solid, n.o.s*; UN 3542, Articles containing a substance liable to spontaneous combustion, n.o.s*; UN 3543, Articles containing a substance which emits flammable gas in contact with water, n.o.s*; UN 3544, Articles containing organic peroxide, n.o.s*; UN 3545, Articles containing toxic substance, n.o.s*; UN 3546, Articles containing toxic substance, n.o.s*; UN 3547, Articles containing corrosive substance, n.o.s*; UN 3548, Articles containing miscellaneous dangerous goods, n.o.s*; UN 3548, Articles containing miscellaneous dangerous goods, n.o.s*;	
Table 3-2	Special Provisions:	
	<b>Revisions to Special Provisions:</b> A214: Replacement of Special Provisions A134, A203 and 207 assigned to vehicles with new Special Provision A214;	
	A59: Addition of a maximum gauge pressure under which exceptions for unserviceable or damaged tire assemblies apply;	
	A67: Addition of classification criteria for non-spillable batteries which previously appeared in PI 872;	
	A78: Revision forbidding the transport of radioactive material with one or more subsidiary risks when the content which most predominantly contributes to the subsidiary hazard is forbidden;	
	A79: Replacement of classification criteria with a reference to classification criteria in the UN <i>Manual of Tests and Criteria;</i>	
	A89: Deleted as a consequence of a requirement for determining ammonium nitrate content being added to the UN <i>Manual of Tests and Criteria;</i>	
	A90: Replacement of classification criteria with a reference to classification criteria in UN <i>Manual of Tests and Criteria;</i>	
	A154: Revision forbidding the transport for lithium cells or batteries that cannot be diagnosed as damaged or defective prior to transport;	
	A201: Addition of provisions allowing for the transport of lithium batteries on passenger aircraft under specified conditions.	



Addition of the following new Special Provisions: A213: Classification criteria for and restrictions on lithium content for lithium metal and total capacity for lithium ion for batteries containing both primary lithium metal and rechargeable lithium ion cells;	
A214: New provision for vehicles and battery-powered equipment and vehicles which replaces Special Provisions A21, A134, A203 and A207.	

### Part 4. Packing Instructions Revision to packing requirements:

TI Reference	Detail	Concerned Party
Packing Instruction 101	Addition of description of distinguishing sign used on vehicles in international road traffic.	all
Packing Instructions 200 and 218	Revision to terminology for calculating pressure limits for cylinders.	Shipper
Packing Instructions 360-366	Revision prohibiting use of single packagings for Packing Groups I and II and introducing a gross mass limit.	Shipper Freight Forwarder Operator
Packing Instruction 459	Packing requirements for samples of energetic materials classified as Division 4.1.	Shipper Freight Forwarder Operator
Packing Instruction 620	Revision separating packaging temperature requirements from pressure differential requirements for UN 2814 and UN 2900.	Shipper Freight Forwarder Operator
Packing Instruction 872	Deletion of classification criteria for non-spillable batteries which are now contained in SP A67.	Shipper
Packing Instruction 951	Addition of requirements for vehicles powered by a flammable liquid and a flammable gas internal combustion engine.	Shipper Freight Forwarder Operator
Packing Instruction 952	Addition for a requirement for lithium batteries to be consigned as UN 3481 – Lithium ion batteries packed with equipment or UN 3091 – Lithium metal batteries packed with equipment when the battery is removed from the vehicle and packed separate from the vehicle in the same outer packaging.	Shipper Freight Forwarder Operator
Packing Instruction 958	Revision to packing requirements for UN 2590 – Asbestos, chrysotile to allow for consistency with the UN Model Regulations.	Shipper Freight Forwarder Operator
Packing Instruction 961	Extension to the provision allowing for air bag inflators, air bag modules and seat-belt pretensioners to be transported unpackaged on cargo aircraft when transported not only from the device manufacturer to the vehicle assembly plant but also between these and other intermediate handling locations.	Shipper Freight Forwarder Operator
Packing Instruction 962	Addition of a new packing requirement for machinery or apparatus containing more than one item of dangerous goods.	Shipper Freight Forwarder Operator



### Major changes of the Technical Instructions in the Edition 2019-2020

Packing	Revision to exception from requirement for orientation arrows for ID 8000 -	Shipper
Instruction Y963	Consumer commodities to align with exceptions from requirement for	Freight
	orientation arrows in Part 4;1.1.13.1.	Forwarder
		Operator

#### Part 5. Shipper's Responsibilities Revisions to marking and labelling requirements:

TI Reference	Detail	Concerned Party
5;1.1	Addition of guidance related to GHS pictograms.	all
5;3.5.1.1c)	Revision to Class 9 hazard label specifications for lithium batteries.	all
5;4.1.5.6.2	Addition of description of distinguishing sign used on vehicles in	all
	international road traffic.	

# Part 6. Packaging Nomenclature, Marking, Requirements and Tests Revisions to packaging marking requirements and tests:

TI Reference	Detail	Concerned Party
6;2, 6;5, 6;6, 6;8)	Addition of description of distinguishing sign used on vehicles in international road traffic.	all
6;4.7.1h)	Revision to test report requirements for packaging performance tests.	Shipper
5;5.1.6.1, Notes 2 and 3	Revision to guidance for complying with periodic inspection and testing requirements for refillable cylinders.	Shipper
6;5.2	Revision to ISO references for construction and testing of UN cylinders and closed cryogenic receptacles.	Shipper
6;5.2.7.4n)	Addition of guidance on marks for identifying threads for cylinders.	Shipper

#### Part 7. Operator's Responsibilities Revisions to operator responsibilities:

TI Reference	Detail	Concerned Party
7;2.2.1, Table 7-1	Addition of new restrictions on the loading of lithium batteries with substances and articles of certain classes and divisions.	Operator Ground Handling Agent
7;2.4.1.2, Table 7-1	Addition of new exceptions for loading of packages or overpacks of dangerous goods bearing the "Cargo aircraft only" label.	Operator Ground Handling Agent
7;2.13	Addition of loading requirements for battery-powered mobility aids previously contained in Part 8.	Operator Ground Handling Agent
7;4.1.1.1	Addition of new requirement for the date of the flight to appear with the information provided to the pilot-in-command and to personnel with responsibilities for operational control of the aircraft.	Operator Ground Handling Agent
7;4.1.3	Addition of new requirement for the aerodrome at which a package of lithium batteries is to be loaded to appear with the information provided to the pilot-in-command and personal with responsibilities for operational control of the aircraft.	Operator Ground Handling Agent



# Part 8. Provisions concerning Passenger and Crew Revisions to provisions for dangerous goods carried by passenger or crew:

TI Reference	Detail	Concerned Party
8;1.1	Simplification of the provisions.	Operator Airport operator Passenger
Table 8-1	Regrouping of entries in list based on hazard and function.	Operator Airport operator
Table 8-1, Item 1)h)	Addition of restrictions for baggage equipped with lithium batteries.	Operator Airport operator Passenger
Table 8-1, Item 3)c)	Addition of new restrictions for batterie-powered portable electronic smoking devices.	Operator Airport operator Passenger
Table 8-1, Item 4) and 7;2.13	Simplification of provisions for battery-powered mobility aids including removal of provisions applicable to the operator to Part 7.	Operator Airport operator Passenger
Table 8-1, Item 5)	Addition of new restrictions for cigarette lighters.	Operator Airport operator Passenger

#### **Revisions to lithium battery provisions:**

TI Reference	Detail	Concerned Party
2;9.3f), SP A123	Addition of new classification criteria for lithium batteries containing both primary lithium metal cells and rechargeable lithium ion cells.	Shipper
2;9.3g)	Addition of new requirement for manufacturers and subsequent distributors of cells or batteries to make available test summaries.	Manufacturer Subsequent distributors
PI 965 and PI 968, 7;2.2.1, Table 7-1	Addition of requirements restricting the packing, overpacking and loading of lithium batteries with substances and articles of certain classes and divisions.	Shipper Operator Ground Handling Agent
PI 966 and 969	Revision clarifying restrictions on spare batteries packed with equipment.	Shipper Freight Forwarder Operator Ground Handling Agent
Pl´s 965-968	Revision to Section II clarifying that the special marking requirements for lithium batteries in Part 5;2 apply.	All
PI´s 965-968	Revision to provisions in Section II requiring minimum height for marking of overpacks.	All
5;3.5.1.1c)	Revision to Class 9 hazard label specifications for lithium batteries.	All



Revision to proposed new training provisions (Attachment 4).