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2009-2010 Edition  
ADDENDUM NO. 2/  
CORRIGENDUM NO. 1  
19/2/09

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**TECHNICAL INSTRUCTIONS FOR THE SAFE TRANSPORT  
OF DANGEROUS GOODS BY AIR**

**2009-2010 EDITION**

**ADDENDUM NO. 2/CORRIGENDUM NO. 1**

The attached addendum/corrigendum should be incorporated into the 2009-2010 Edition of the Technical Instructions (Doc 9284).

*Note.— Addendum No. 1 did not affect the English version of the 2009-2010 Edition of the Technical Instructions.*



**TECHNICAL INSTRUCTIONS FOR THE SAFE TRANSPORT  
 OF DANGEROUS GOODS BY AIR**

In Part 2, Chapter 1, page 2-1-4, Table 2-3, *add* "1" to the last column for Hazard 1.5.

In Part 2, Chapter 5, page 2-5-2, *amend* paragraph number "5.2.2.1.4" to read "5.2.2.2".

In Part 3, Chapter 2, Table 3-1, page 3-2-82, **Diphenyldichlorosilane**, UN 1769, *replace* "Toxic" in column 5 with "Corrosive".

In Part 3, Chapter 2, Table 3-1, page 3-2-127, *add* "II" in column 8 for the following entries:

- Lithium ion batteries contained in equipment** (including lithium ion polymer batteries), UN 3481
- Lithium ion batteries packed with equipment** (including lithium ion polymer batteries), UN 3481
- Lithium metal batteries contained in equipment** (including lithium alloy batteries)†, UN 3091
- Lithium metal batteries packed with equipment** (including lithium alloy batteries)†, UN 3091

In Part 3, Chapter 2, Table 3-1, page 3-2-136, **Methane, refrigerated liquid** LNG, UN 1972, *amend* to read "**Methane, refrigerated liquid** with high methane content".

In Part 3, Chapter 2, Table 3-1, page 3-2-229, **Zirconium, dry**, coiled wire, finished metal sheets, strip (thinner than 254 microns but not thinner than 18 microns), UN 2858, *delete* A88 in column 7.

Part 3, Chapter 3, Table 3-2, page 3-3-2, Special Provision A26, *add* "(119)" to the "UN" column.

Part 3, Chapter 3, Table 3-2, page 3-3-8, *amend* Special Provision A99 to read:

A99 Irrespective of the limit specified in column 13 of Table 3-1, a lithium battery or battery assembly that has successfully passed the tests specified in the UN *Manual of Tests and Criteria*, Part III, subsection 38.3, and that meets the requirements of Packing Instruction 965 for lithium ion batteries and Packing Instruction 968 for lithium metal batteries as prepared for transport may have a mass exceeding 35 kg G, if approved by the appropriate authority of the State of Origin. A copy of the document of approval must accompany the consignment.

In Part 3, Chapter 3, Table 3-2, page 3-3-12, *amend* Special Provision A158 to read:

A158 (335) Mixtures of solids which are not subject to these Instructions and liquids or solids classified by the shipper as environmentally hazardous substances (UN 3077 and 3082) (see Special Provision A97) may be transported under this entry, provided there is no free liquid visible at the time the substance is loaded or at the time the packaging is closed. Sealed packets and articles containing less than 10 mL of an environmentally hazardous liquid, absorbed into a solid material but with no free liquid in the packet or article, or containing less than 10 g of an environmentally hazardous solid, are not subject to these Instructions.

In Part 4, Chapter 5, page 4-5-5, Packing Instruction 306, *add* the following entries under Combination Packagings, Inner:

UN No.	Glass or earthenware IP.1 (L)	Plastic IP.2 (L)	Metal (not aluminium) IP.3 (L)	Aluminium IP.3A (L)	Glass ampoule IP.8 (L)	Particular packing requirements
1250	1	No	1	No	0.5	5
1305	1	No	1	No	0.5	5

In Part 5, Chapter 2, page 5-2-3, *amend* paragraph 2.4.9 to read:

#### 2.4.9 Special marking provisions for environmentally hazardous substances

2.4.9.1 Packages containing substances or mixtures dangerous to the aquatic environment not presenting a danger covered by other classes, but classified by the shipper as dangerous goods (UN Nos. 3077 and 3082) (see Special Provision A97), must be durably marked with the environmentally hazardous substance mark, with the exception of single packagings and combination packagings containing inner packagings with:

- contents of 5 L or less for liquids; or
- contents of 5 kg or less for solids.

In Part 5, Chapter 3, page 5-3-2, paragraph 3.2.11 e) *add* a “≠” margin symbol next to the paragraph and a “>” margin symbol below it.

In Attachment 1, Chapter 1, page A1-1-27, UN 2909, *delete* second entry.

In Attachment 3, Chapter 1, Table A-1 — State variations, the following amendments should be made:

#### DK — DENMARK

*Add* the following new variation:

DK 2	National legislation in Denmark specifies that aircraft in the Danish FIR must not without permission from the Civil Aviation Administration — Denmark carry weapons, explosives, war equipment or munitions.	1;1.2 2;1 4;3 7;1
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Written applications must be forwarded to:

Civil Aviation Administration  
Luffartshuset  
Ellebjergervej 50  
Box 744  
DK-2450 Copenhagen SV

Applications must be received by the Civil Aviation Administration — Denmark five working days before the actual flight.

#### JP — JAPAN

*Delete* the entry for JP-22.

#### RU — RUSSIAN FEDERATION

*Replace* RU 1 and RU 2 with the following:

RU 1	For all domestic transports in the Russian Federation, the Russian language must be used for all dangerous goods markings and transport documents. For international transports originating in the Russian Federation, Russian and English must be used for dangerous goods labels and transport documents in addition to the languages required by the States of transit and destination.	5;2.5 5;4.1 5;4.1.1
RU 2	An operator planning to transport high consequence dangerous goods indicated in Table 1-6 of the Technical Instructions to, from, within or through the territory of the Russian Federation shall not accept such goods for transport without receiving confirmation from the airport (or from the ground handling agent) that such goods can be handled in the territory of the Russian Federation, as well as confirmation of the consignee's preparedness to accept such goods (if the goods are transported to the territory of the Russian Federation).	7; 1; 1.1.1 7; 1; 1.1.2

Add new RU 3:

RU 3 Fissile radioactive material in any quantity shall not be accepted in the Russian Federation for carriage on passenger aircraft, and shall not be transported into the Russian Federation, from its territory or through its territory without prior permission from:

Federal Environmental, Technological and Atomic Supervisory Body  
(ROSTECHNADZOR)  
Ul. Taganskaya, 34  
109147 Moscow  
Russia  
Telephone: 495-411-60-22  
Facsimile: 495-261-60-43

This variation covers fissile radioactive material and articles thereof containing uranium-233, uranium-235, plutonium and other isotopes of transuranic elements.

## US — UNITED STATES

Replace US 2 with the following:

US 2 In addition to the dangerous goods included in the Dangerous Goods List (Table 3-1) with the word "Forbidden" shown in columns 2 and 3, any material forbidden for transport by the United States' Regulations is also forbidden for transport under any circumstances to, from or within the United States (see 49 CFR 173.21 and the Hazardous Materials Table in 49 CFR 172.101). 1;2.1  
3;2  
4;11

Unless specifically authorized by the Hazardous Material Table in 49 CFR 172.101, the transport of a liquid with a vapour inhalation toxicity meeting the criteria of Division 6.1, Packing Group I or a gas meeting the criteria of Division 2.3 is forbidden for transport aboard passenger and cargo aircraft to, from or within the United States.

Primary (non-rechargeable) lithium metal batteries and cells (UN 3090) are forbidden for transportation aboard passenger-carrying aircraft. Such batteries transported in accordance with Section I of Packing Instruction 968 must be labelled with the CARGO AIRCRAFT ONLY label. Such batteries transported in accordance with Section II of Packing Instruction 968 must be marked "PRIMARY LITHIUM BATTERIES — FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT" or "LITHIUM METAL BATTERIES — FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT".

Primary (non-rechargeable) lithium metal batteries and cells contained in or packed with equipment (UN 3091) are forbidden for transportation aboard passenger-carrying aircraft unless:

- 1) the equipment and the batteries and cells are transported in accordance with Packing Instruction 969 or 970, as appropriate;
- 2) the package contains no more than the number of lithium metal batteries or cells necessary to power the intended piece of equipment;
- 3) the lithium content of each cell, when fully charged, is not more than 5 grams;
- 4) the aggregate lithium content of the anode of each battery, when fully charged, is not more than 25 grams; and
- 5) the net weight of lithium batteries does not exceed 5 kg (11 lb).

Primary (non-rechargeable) lithium metal batteries and cells contained in or packed with equipment (UN 3091) and transported in accordance with Section I of Packaging Instruction 969 or 970 that do not conform to the above

provisions are forbidden for transportation aboard passenger-carrying aircraft and must be labelled with the CARGO AIRCRAFT ONLY label.

Primary (non-rechargeable) lithium metal batteries and cells contained in or packed with equipment (UN 3091) and transported in accordance with Section II of Packaging Instruction 969 or 970 that do not conform to the above provisions are forbidden for transportation aboard passenger-carrying aircraft and must be marked "PRIMARY LITHIUM BATTERIES — FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT" or "LITHIUM METAL BATTERIES — FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT".

*Note.— Dangerous goods that are forbidden on passenger aircraft by 49 CFR 172.101 (Column 9A) are also forbidden on passenger aircraft even when the ICAO Technical Instructions permit such carriage. Dangerous goods that are forbidden on cargo aircraft by 49 CFR 172.101 (Column 9B) are also forbidden on cargo aircraft even when the ICAO Technical Instructions permit such carriage.*

In Attachment 3, Chapter 2, page A3-2-1, paragraph 2.5, *delete* "Air Canada Jazz — QK".

In Attachment 3, Chapter 2, page A3-2-1, paragraph 2.5, *add* "Blue Dart Aviation Ltd. — BZ".

In Attachment 3, Chapter 2, page A3-2-1, paragraph 2.5, *add* "Mongolian Airlines — OM".

In Attachment 3, Chapter 2, page A3-2-1, paragraph 2.5, *replace* "Varig Airlines — RG" with "Varig Logistica — LC".

In Attachment 3, Chapter 2, Table A-2 — Operator variations, the following amendments should be made:

Page A3-2-2, *delete* the "AC — Air Canada" variations.

Page A3-2-7, *delete* the note below BR-15.

Page A3-2-7, *add* the following new variation:

**BZ — Blue Dart Aviation Ltd.**

BZ-01	Dangerous goods falling under Class 1 — Explosives, will not be accepted for carriage or handling by Blue Dart Aviation.	
BZ-02	Dangerous goods in airmail will not be accepted for carriage.	1;2,3
BZ-03	Class 7 — Only the following radioactive material will be accepted for carriage: <ul style="list-style-type: none"><li>— radioactive material in "excepted packages";</li><li>— "other form" radioactive material packaged in Type A packagings not exceeding the A<sub>2</sub> values or Transport Index 10; and</li><li>— the shipper's declaration accompanying each shipment of radioactive material of Categories I, II or III must show the following endorsement: "This radioactive material is intended for use in, or incidental to, research or medical diagnosis or treatment".</li></ul>	
BZ-04	Radioactive and fissile wastes will not be accepted for carriage.	2;7
BZ-05	The shipper must provide a 24-hour emergency telephone number of a person/agency who is knowledgeable of the hazards, characteristics and actions to be taken in the case of an accident or incident concerning each of the dangerous goods being transported. This telephone number, including the country and area code, preceded by the words "Emergency contact" or "24-hour number", must be inserted on the shipper's declaration for dangerous goods in the "Handling information" box.  A 24-hour emergency telephone number is not required for shipments that do not require a shipper's declaration for dangerous goods.	5;4
BZ-06	Prior clarification must be taken from the operator for sending shipments containing magnets under UN 2807. Refer to instructions under Packing Instruction 902.	

BZ-07 Infectious substances, patient specimens, diagnostic specimens, clinical specimens and biological substances (human or animal) will only be accepted if assigned to UN 2814 or UN 2900, as appropriate. 2;6  
 Table 3-1  
 5;4

The only exceptions to this variation are:

- dried blood spots, collected by applying a drop of blood onto absorbent material;
- pathogen-free blood or blood components collected for transfusion or for the preparation of blood products to be used for human or animal transfusion or transplantation;
- any tissues or organs intended for use in human or animal transplantation.

In these cases, the air waybill must bear a detailed description to enable identification as non-regulated material (see Packing Instructions 602 and 8.2 of the IATA Dangerous Goods Regulations).

Page A3-2-11, CS-11, *replace* “Continental Airlines” with “Continental Micronesia”.

Page A3-2-18, IJ-01 and IJ-02, *replace* with the following:

IJ-01 Only explosives of Division 1.4S, packed for passenger and cargo aircraft, will be accepted and these must be loaded in the lower deck of all aircraft. 2;1  
 Table 3-1

IJ-02 Items with a primary or subsidiary risk of Division 2.1, Class 4 and Class 5, when packed for cargo aircraft only, will not be accepted for carriage. 2;2, 2;3,  
 2;4, 2;5  
 Table 3-1

Page A3-2-28, *add* “LC — Varig Logistica” variations as follows:

**LC — VARIG LOGISTICA**

LC-01 Dry shippers/dry dewars meeting the definition of the note in Packing Instruction 202 must have an indication on the outer package that the shipment is not restricted or non-hazardous. 4;4  
 5;2

LC-02 All combination packagings containing liquid dangerous goods must contain sufficient absorbent material to absorb the entire contents of all the inner packagings independently of packing groups. 4;1

LC-03 Dangerous goods in excepted quantities as provided for in 3;5 will not be accepted for transport on Varig Logistica. This prohibition does not apply to excepted packages of radioactive materials. 3;5

LC-04 The following dangerous goods will not be accepted for carriage on Varig Logistica: Table 3-1

UN 1063 — Methyl chloride [200]  
 UN 1090 — Acetone [305, Y305, 307]  
 UN 1155 — Ethyl ether [302, 303]  
 UN 1193 — Ethyl methyl ketone [305, Y305, 307]  
 UN 1294 — Toluene [305, Y305, 307]  
 UN 1490 — Potassium permanganate [508, Y508, 511]  
 UN 1715 — Acetic anhydride [809, Y809, 813]  
 UN 1789 — Hydrochloric acid [809, Y809, 813]  
 UN 1830 — Sulphuric acid with more than 51% acid [809, Y809, 813]  
 UN 1832 — Sulphuric acid, spent [813]  
 UN 1888 — Chloroform [610, Y610, 612]  
 UN 2796 — Sulphuric acid with not more than 51% acid [809, Y809, 813]  
 UN 2837 — Bisulphates, aqueous solution [809, Y809, 813].

LC-05 For international routes, reservations must be made for all shipments containing dangerous goods as defined in these Instructions.

- LC-06 Telephone number: The shipper's declaration for dangerous goods as defined in these Instructions must include a 24-hour emergency response telephone number (including area codes and international access codes). 5;4
- Emergency response information: Besides the shipper's declaration for dangerous goods, all shipments containing dangerous goods must be accompanied by their respective material safety data sheets which must include at least:
- a) the description of the dangerous goods;
  - b) immediate hazards to health;
  - c) risks of fire or explosion;
  - d) immediate precautions to be taken in the event of an accident or incident;
  - e) immediate methods for handling fire;
  - f) initial methods for handling spills or leaks in the absence of a fire;
  - g) preliminary first aid measures.
- This requirement does not apply to shipments of carbon dioxide, solid (dry ice); battery-powered vehicles and equipment; internal combustion engines; vehicles or magnetized material. The English language must be used when international shipments are made. For domestic shipments within Brazil, the Portuguese language is acceptable.
- LC-07 Dangerous goods as defined in these Instructions will not be accepted in air mail. 4;1
- LC-08 In the case of transshipment, a photocopy of the shipper's declaration will not be accepted. Two (2) copies of the shipper's declaration must be forwarded with the consignment (see 8.1.2.3 of the IATA Dangerous Goods Regulations).
- LC-09 The carriage of carbon dioxide, solid (dry ice), UN 1845 will be limited to the following:
- 200 kg (440 lb) per aircraft
- Note.— For additional values, advance requirements and approval by the Dangerous Goods Coordinator, contact:*
- Operational Planning, General Management  
Dangerous Goods Coordinator  
Telephone: +55 21 2468 2476  
Facsimile: +55 21 2468 2584  
Teletype: RIOFILC*
- LC-10 Radioactive material, Category II-Yellow and III-Yellow, must have prior authorization issued by Operational Planning, General Management, before the booking will be accepted. Analysis shall be made in advance based on the completed shipper's declaration, package approval certificate(s) and other documentation relevant to the consignment. The authorization(s) shall be given as soon as the analysis is completed.

Page A3-2-29, *replace* LH-03 with the following:

- LH-03 Infectious substances (UN 2814, UN 2900 and UN 3373) will not be accepted in airmail. 1;2.3

Page A3-2-29, *delete* the entry for LH-08.



Page A3-2-38, *add* the following new variation:

**OM — Mongolian Airlines**

OM-01	Advance arrangements must be made for all shipments of dangerous goods as defined in the IATA Dangerous Goods Regulations. Dangerous goods without booking will be rejected.	
OM-02	Dangerous goods requiring a cargo aircraft only (CAO) label will not be accepted for carriage	5;3
OM-03	Dangerous goods in airmail will not be accepted for carriage.	1;2.3
OM-04	Dangerous goods in limited quantities ("Y" packing instructions) will not be accepted for carriage.	3;4
OM-05	Dangerous goods in excepted quantities will not be accepted for carriage.	3;5
OM-06	Dangerous goods in consolidations will not be accepted for carriage.	7;2
OM-07	Salvage packaging will not be accepted.	4;1
OM-08	Class 7 — Radioactive material of any kind will not be accepted for carriage.	2;7

Page A3-2-43, *delete* the "RG — VARIG AIRLINES" variations.

Page A3-2-50, US-01, second bullet, *replace* "4.4 pounds (2.0 kg)" with "5.5 pounds (2.5 kg)".

Page A3-2-53, *replace* the entry for 5X-02 with the following:

- 5X-02 Shipments of dangerous goods in the UPS small package service with an origin and/or destination outside the United States, including shipments of excepted quantities and biological substances, Category B, will be accepted by contract only. Combination packagings must be used and packages must not exceed 30 kg gross weight. When applicable, not more than three compatible different dangerous goods may be contained in one outer packaging (see 5.0.2.11 of the IATA Dangerous Goods Regulations). Other than specifically approved shipments of dangerous goods in excepted quantities, the following classes/divisions of dangerous goods are prohibited from UPS international small package services under any circumstances:
- Class 1 (Explosives);
  - Division 2.3 (Toxic gas);
  - Division 4.2 (Spontaneously combustible);
  - Division 4.3 (Dangerous when wet);
  - Division 5.1 (Oxidizing substances);
  - Division 5.2 (Organic peroxide);
  - Division 6.1 — Substances requiring a "Toxic" label;
  - Division 6.2 (Infectious substances, Category A);
  - Class 7 — Substances requiring a "Radioactive" White-I, Yellow-II, Yellow-III or Fissile label;
  - Radioactive material, excepted package shipments are also prohibited.

— END —