TEL : (504) 2275 7090
(504) 2283 4750
(504) 2283 4770
(504) 2275 7110
AFS : MHTGYNYX
Email : ais_pub@cocesna.org
URL : www.cocesna.org/ais.php

CORPORACION CENTROAMERICANA DE SERVICIOS DE NAVEGACION AEREA

SERVICIOS DE INFORMACION AERONAUTICA
APARTADO POSTAL NO.660
TEGUCIGALPA, M.D.C.

AIC

A 68/19

Publicado el 05 JUL 2019

Efectivo a partir de 05 JUL 2019

CARRIAGE AND TRANSPORTATION OF LITHIUM BATTERIES BY AIR — GEN

1. PURPOSE

This document contains acceptable guidance for the approval of safe transportation of Lithium Batteries based on the requirements of ICAO document 9284 (Technical Instructions).

2. WHO DOES THIS APPLY TO?

This AIC applies to all AOC Holders/Foreign Air Carriers and those service providers who are engaged in the transportation of dangerous goods by air.

International procedures for controlling the introduction of dangerous goods into air transport through the postal service have been established by the Universal Postal Union. Clarification of requirements for designated postal operators to receive specific approval from Civil Aviation Authorities, before introducing the acceptance of lithium batteries (1;2.3.4).

Note : -BCAR 18 is in the process of being amended to incorporate the requirements for the safe transportation of lithium batteries as per document 9284 (Technical Instructions).

Definitions

Lithium Battery - The term “lithium battery” refers to a family of batteries with different chemistries, compromising many types of cathodes and electrolytes for the purpose of the DGR they are separated into.

Designated postal operator - Any governmental or non-governmental entity officially designated by a Universal Postal Union (UPU) member country to operate postal services and to fulfil the related obligations arising from the acts of the UPU Convention on its territory.

Mail - Dispatches of correspondence and other items tendered by, and intended for delivery to, postal services in accordance with the rules of the Universal Postal Union (UPU).

Cell - A single encased electrochemical unit.

Battery - A number of cells electrically connected to each other and packed together in a common housing.

Watt-hour (W/h) - means a unit of energy equivalent to one watt (1 W) of work acting for one hour (1 h) of time. The watt-hour rating of a lithium-ion cell or battery is determined by multiplying the rated capacity of a cell or battery in ampere-hours, by its nominal voltage. Therefore, watt-hour (W/h) = ampere-hour (Ah) x volts (V).

Classification (2-9-2)

Lithium batteries are classified in Class 9 as Miscellaneous Dangerous Goods as:

- UN 3090, LITHIUM METAL BATTERIES
- UN 3480, LITHIUM ION BATTERIES

Or if inside a piece of equipment or packed separately with a piece of equipment to power that equipment as:

- UN 3091, LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
- UN 3091, LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT
- UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT
- UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT

Lithium Metal Batteries . (UN3090)- Are generally primary (non-rechargeable) batteries that have lithium metal or lithium compounds as an anode. Also included within lithium metal are lithium alloy batteries. Lithium metal batteries are generally used to power devices such as watches, calculators, cameras, temperature data loggers, car key fobs and defibrillators.

Lithium-ion Batteries . (UN 3480)- (sometimes abbreviated Li-ion batteries) are a secondary (rechargeable) battery where the lithium is only present in an ionic form in the electrolyte. Also included within the category of lithium-ion batteries are lithium polymer batteries. Lithium-ion batteries are generally used to power devices such as mobile telephones, laptop computers, tablets, power tools and e-bikes.

Prohibitions

Lithium ion batteries

All lithium ion cells and batteries shipped by themselves (UN 3480) are forbidden for transport as cargo on passenger aircraft. All packages prepared in accordance with Packing Instruction 965, Section IA, IB and II, must bear a Cargo Aircraft Only label, in addition to existing marks and/or labels.

Lithium metal batteries

All lithium metal cells and batteries shipped by themselves (UN 3090) are forbidden for transport as cargo on passenger aircraft. All packages prepared in accordance with Packing Instruction 968, Section IA, IB and II, must bear a Cargo Aircraft Only label, in addition to existing marks and/or labels.

Restrictions

Lithium ion batteries

All lithium ion cells and batteries (UN 3480 only) must be shipped at a state of charge (SoC) not exceeding 30% of their rated capacity. Cells and/or batteries at a SoC of greater than 30% may only be shipped with the approval of the State of Origin and the State of the Operator under the written conditions established by those authorities, see Special Provision A331.

Packing Restrictions

PI965 & PI968 Section IA & IB

UN 3090, lithium metal batteries prepared in accordance with Section IA or Section IB of PI 968 and UN 3480, lithium ion batteries prepared in accordance with Section IA or Section IB of PI 965 must not be packed in the same outer packaging with dangerous goods classified in Class 1 (explosives) other than Division 1.4S, Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids) or Division 5.1 (oxidizers). Packages containing cells or batteries must not be placed in an over pack with packages containing dangerous goods classified in Class 1 other than Division 1.4S, Division 2.1, Class 3, Division 4.1 or Division 5.1.

PI965 & PI968 Section II

Cells and batteries must not be packed in the same outer packaging with other dangerous goods.

If the equipment contains lithium cells or batteries, these cells or batteries must comply with the following restrictions: (Chapter 3, Special Provisions A178) Technical Instructions Document 9284.

1) for a lithium metal cell, the lithium content is not more than 1 g;

2) for a lithium metal or lithium alloy battery, the aggregate lithium content is not more than 2 g;

3) for lithium ion cells, the Watt-hour rating (see Attachment 2) is not more than 20 W/h;

4) for lithium ion batteries, the Watt-hour rating is not more than 100 W/h;

5) each cell or battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, section 38.3;

PASSENGERS TRAVELLING WITH LITHIUM BATTERIES

Carriage of portable electronic devices (PED), portable medical electronic devices (PMED) and spare batteries by passengers is dependent on the Watt-hour (W/h) rating for lithium ion (rechargeable) batteries or the lithium metal content in grams (g) for lithium metal (non-rechargeable) batteries.

❍ Use the below table to determine if your PED, PMED or spare battery(ies) can be carried.

W/h rating or lithium metal content	Configuration	Carry-on baggage	Checked baggage	Operator approval
≤ 100 Wh / 2g	In equipment (PED or PMED) Spare battery(ies)	Yes (max 15 PED/PMED) Yes (max 20 spare batteries)	YES NO	NO NO
>100Wh to ≤160Wh	In equipment (PED or PMED) Spare battery(ies)	Yes Yes (max 2 spare batteries)	YES NO	YES YES
>160Wh	Must be prepared and carried as cargo in accordance with the IATA Dangerous Goods Regulations	Must be prepared and carried as cargo in accordance with the IATA Dangerous Goods Regulations	Must be prepared and carried as cargo in accordance with the IATA Dangerous Goods Regulations	Must be prepared and carried as cargo in accordance with the IATA Dangerous Goods Regulations
> 2g ≤ 8g	In equipment (PMED only Spare batteries for PMED	Yes Yes (max 2 spare batteries)	YES NO	YES YES

*1. Each person is limited to a maximum of 15 PED. The operator may approve the carriage of more than 15 PED.

*2. Each person is limited to a maximum of 20 spare batteries of any type. The operator may approve the carriage of more than 20 batteries.

Portable electronic devices (PED) containing batteries

PEDs, which may include electronics such as cameras, mobile phones, laptops and tablets containing batteries, when carried by passengers for personal use, should be carried in carry-on baggage. If devices are carried in checked baggage:

❍ measures must be taken to protect the device from damage and to prevent unintentional activation;
❍ the device must be completely switched off (not in sleep or hibernation mode).

Spare lithium batteries

Spare batteries must be individually protected to prevent short circuits by placement in the original retail packaging or by otherwise insulating terminals, e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch and carried in carry-on baggage only. Articles containing lithium cells or batteries, the primary purpose of which is to provide power to another device, e.g. power banks, are considered as spare batteries and are restricted to carry-on baggage only.

Batteries must be of a type that meets the requirements of the UN Manual of Tests and Criteria, Part III, subsection 38.3.

Electronic cigarettes containing batteries – “e-cigarettes”

Electronic cigarettes including e-cigars and other personal vaporizers containing batteries when carried by passengers for personal use must be in carry-on baggage only. Recharging of these devices and/or batteries on board the aircraft is not permitted and the passenger must take measures to prevent accidental activation

Baggage with integrated lithium batteries – "smart luggage"

- These devices could include integrated lithium batteries, motors, power banks, GPS, GSM, Bluetooth, RFID or Wi-Fi technology. The presence of the lithium batteries can contravene various regulatory requirements. Examples of "smart" luggage include features such as:
- Lithium ion battery and motor allowing it to be used as a personal transportation device.
- Lithium ion battery power bank that allows charging of other electronic devices. • GPS tracking devices with or without GSM capability.
- Bluetooth, RFID and Wi-Fi capability. All portable electronic devices (PED) carried on an aircraft are subject to specific requirements to ensure that they do not pose a hazard to aircraft systems due to electromagnetic radiation.

Baggage equipped with a lithium battery, other than lithium button cells:

- If the baggage is to be checked in, the lithium battery must be removed from the baggage and the lithium battery must be carried in the cabin; or
- The baggage must be carried in the cabin.
- Baggage where the lithium battery is designed to charge other devices and cannot be removed is forbidden for carriage

Note. - For shipments subject to the ICAO Technical Instructions, the following provisions, which are applicable to both cargo transporters and operators, became effective on April 1, 2016:

Shipments of **UN 3480 Lithium Ion Batteries** , including lithium ion polymer batteries, are **FORBIDDEN** from transport as cargo on passenger aircraft. These shipments must now have the "Cargo Aircraft Only" label in addition to existing hazard communication requirements.

Shipments of **UN 3480 Lithium Ion Batteries** , including lithium ion polymer batteries "must be offered for transport at a state of charge not exceeding 30 percent of their rated capacity. Cells and/or batteries at a state of charge greater than 30 percent of their rated capacity may only be shipped internationally with the approval of the State of Origin and the State of the Operator under the written conditions established by those authorities".

Shippers of **UN 3480 Lithium Ion Batteries** , including lithium ion polymer batteries, and **UN 3090 Lithium Metal Batteries** , including lithium alloy batteries, under ICAO's "Section II" provisions (for Packing Instruction (PI) PI 965 and PI 968) are not permitted to offer for transport more than one Section II package in any single consignment or more than one Section II package per over pack.

ESTA AIC A LA eAIP DE CENTROAMERICA SE REFIERE AL AIP AIC 3/19 DEL ESTADO DE BELICE, DE LA MISMA FECHA

PÁGINA DEJADA INTENCIONALMENTE EN BLANCO