

Issued: 21 July 2014

Revised Guidance on Dealing with Dangerous Goods Incidents in the Cabin

This Information Notice contains information that is for guidance and/or awareness.

Recipients are asked to ensure that this Information Notice is copied to all members of their staff who may have an interest in the information (including any 'in-house' or contracted maintenance organisations and relevant outside contractors).

Applicability:	
Aerodromes:	Not primarily affected
Air Traffic:	Not primarily affected
Airspace:	Not primarily affected
Airworthiness:	Not primarily affected
Flight Operations:	All Aeroplane and Helicopter AOC Holders and PAOC Holders
Licensed/Unlicensed Personnel:	Not primarily affected

1 Introduction

- 1.1 Following a number of fires in the cabin caused by lithium battery powered portable electronic devices, the International Civil Aviation Organization (ICAO) has amended its "Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods" (ICAO Doc 9481 AN/928) to include guidance to cabin crew to assist in dealing with such incidents.
- 1.2 The ICAO guidance has also been revised to include separate checklists for incidents involving dangerous goods within the passenger cabin entitled "Fire Involving Dangerous Goods" and "Spillage or Leakage of Dangerous Goods".
- 1.3 For operations without cabin crew, the procedures for flight crew should take into account the revised ICAO guidance in so far as this is practical. Alternative options should be considered, such as enlisting the assistance of a passenger.
- 1.4 IN-2014/117 announced the release of 'Videos on the Hazards to Flight Safety from the Improper Carriage of Lithium Batteries'. The video aimed at crew members includes guidance on dealing with portable electronic device fires onboard aircraft which is reflective of the latest ICAO material.

2 Purpose

- 2.1 This Information Notice provides updated guidance to operators in dealing with dangerous goods incidents occurring in the passenger cabin.

- 2.2 The Appendix reproduces checklists and text from the “ICAO Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods”, which will be effective from 1 January 2015. The new guidance replaces the material currently published in Sections 3.3 and 3.4 of the 2013-2014 Edition of the ICAO document.

3 Recommendation

- 3.1 Operators should update the guidance provided to flight and cabin crew within Operations Manuals and training material. In light of the potential consequences of a portable electronic device fire in the cabin, it is recommended that guidance be updated in advance of the revised procedures being published within ICAO Doc 9481.
- 3.2 Operators should also verify that adequate equipment for the purpose of responding to dangerous goods incidents, including portable electric device fires, is carried within the cabin. This is particularly relevant to operators of smaller aircraft which may not carry items found on larger aircraft (e.g. toilet waste bins, oven gloves) that can be utilised in the event of an emergency.

4 Queries

- 4.1 Any queries or requests for further guidance as a result of this communication should be addressed to CAA Cabin Safety on 01293 573494 or FOCabin.Safety@caa.co.uk.

5 Cancellation

- 5.1 This Information Notice will remain in force until further notice.

APPENDIX

3.3 CABIN CREW CHECKLIST FOR DANGEROUS GOODS INCIDENTS IN THE PASSENGER CABIN DURING FLIGHT

BATTERY / PORTABLE ELECTRONIC DEVICE (PED) FIRE / SMOKE	
Step	Cabin Crew Action
1.	Identify the item <i>Note — It may not be possible to identify the item (source of fire) immediately. In this case, apply Step 2 first, and then attempt to identify it.</i> Caution: In order to avoid injury from a flash fire, it is not recommended to open the affected baggage when there is any indication of smoke or flames
2.	Apply fire-fighting procedure: i. Obtain and use the appropriate fire extinguisher ii. Retrieve and use protective equipment, as applicable to the situation iii. Move passengers away from the area, if possible iv. Notify pilot-in-command / other cabin crew members <i>Note — Actions should occur simultaneously in a multi-crew operation</i>
3.	Remove power: i. Disconnect the device from the power supply, if safe to do so ii. Turn off in-seat power, if applicable iii. Verify that power to the remaining electrical outlets remains off, if applicable Caution: i. Do not attempt to remove the battery from the device
4.	Douse the device with water (or other non-flammable liquid) <i>Note — Liquid may turn to steam when applied to the hot battery</i>
5.	Leave the device in its place and monitor for any re-ignition i. If smoke or flames re-appear, repeat Steps 2 then 4 Caution: i. Do not attempt to pick-up or move the device ii. Do not cover or enclose the device iii. Do not use ice or dry ice to cool the device
6.	When the device has cooled (e.g. approximately 10 to 15 minutes): i. Obtain a suitable empty container ii. Fill the container with enough water (or other non-flammable liquid) to submerge the device iii. Using protective equipment, place the device in the container and completely submerge in water (or other non-flammable liquid) iv. Stow and (if possible) secure the container to prevent spillage
7.	Monitor the device and the surrounding area for the remainder of the flight
8.	After landing at the next destination: i. Apply operator's post-incident procedures

OVERHEAD BIN BATTERY / PORTABLE ELECTRONIC DEVICE (PED) FIRE / SMOKE	
Step	Cabin Crew Action
1.	Apply fire-fighting procedure: i. Obtain and use the appropriate fire extinguisher ii. Retrieve and use protective equipment, as applicable to the situation iii. Move passengers away from the area, if possible iv. Notify pilot-in-command / other cabin crew members <i>Note — Actions should occur simultaneously in a multi-crew operation</i>
2.	Identify the item: If the device is visible and accessible, or if the device is contained in baggage and flames are visible: i. Re-apply Step 1 to extinguish the flames, if applicable ii. Apply Steps 3 to 5 If smoke is coming from the overhead bin, but the device is not visible or accessible: i. Remove other baggage from the overhead bin to access the affected baggage/item ii. Identify the item iii. Apply Steps 3 to 5 Caution: In order to avoid injury from a flash fire, it is not recommended to open the affected baggage when there is any indication of smoke or flames
3.	Douse the device (baggage) with water (or other non-flammable liquid) <i>Note — Liquid may turn to steam when applied to the hot battery</i>
4.	When the device has cooled: i. Obtain a suitable empty container ii. Fill the container with enough water (or other non-flammable liquid) to submerge the device iii. Using protective equipment, place the device in the container and completely submerge in water (or other non-flammable liquid) iv. Stow and (if possible) secure the container to prevent spillage
5.	Monitor the device and the surrounding area for the remainder of the flight
6.	After landing at the next destination: i. Apply operator's post-incident procedures

OVERHEATED BATTERY / ELECTRICAL SMELL INVOLVING A PORTABLE ELECTRONIC DEVICE (PED) - NO VISIBLE FIRE OR SMOKE

Step	Cabin Crew Action
1.	Identify the item
2.	Instruct the passenger to turn off the device immediately
3.	Remove power: - Disconnect the device from the power supply, if safe to do so - Turn off in-seat power, if applicable - Verify that power to the remaining electrical outlets remains off, if applicable - Verify that the device remains off for the remainder of the flight Caution: Do not attempt to remove the battery from the device
4.	Instruct the passenger to keep the device visible and monitor closely Caution: Unstable batteries may ignite even after the device is turned off
5.	If smoke or flames appear: Apply BATTERY / PED FIRE / SMOKE checklist
6.	After landing at the next destination: Apply operator's post-incident procedures

PED INADVERTENTLY CRUSHED OR DAMAGED IN ELECTRICALLY ADJUSTABLE SEAT

Step	Cabin Crew Action
1.	Notify the pilot-in-command / other cabin crew members
2.	Obtain information from passenger, by asking him/her: - To identify the item - Where he/she suspects that the item may have dropped or slipped into - If the seat was moved since misplacing the item
3.	Retrieve and use protective equipment, if available
4.	Retrieve the item. Caution: Do not move the seat electrically or mechanically when attempting to retrieve the item.
5.	If smoke or flames appear: Apply BATTERY / PED FIRE / SMOKE checklist
6.	After landing at the next destination: Apply operator's post-incident procedures
7.	After landing at the next destination: Apply operator's post-incident procedures