

Doc 9481
AN/928



Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods

Approved by the Secretary General
and published under his authority

2015–2016 Edition

International Civil Aviation Organization

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Published in separate English, Arabic, Chinese, French,
Russian and Spanish editions by the
INTERNATIONAL CIVIL AVIATION ORGANIZATION
999 University Street, Montréal, Quebec, Canada H3C 5H7

For ordering information and for a complete listing of sales agents
and booksellers, please go to the ICAO website at www.icao.int

2015–2016 Edition

**ICAO Doc 9481, Emergency Response Guidance for Aircraft Incidents
Involving Dangerous Goods**

Order Number: Doc 9481

ISBN 978-92-9249-583-1

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FOREWORD

Annex 18 to the Convention on International Civil Aviation — *The Safe Transport of Dangerous Goods by Air* — requires that “The operator shall provide such information in the Operations Manual as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.” This requirement is also included in the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284). Annex 6, Part I, Appendix 2 also requires that “information and instructions on the carriage of dangerous goods, including action to be taken in the event of an emergency” be included in the operations manual.

This document has been developed with the assistance of the Dangerous Goods Panel to provide guidance to States and operators for developing procedures and policies for dealing with dangerous goods incidents on board aircraft. It does not cover incidents which occur while the aircraft is on the ground, since emergency services should be available for such occurrences.

This document contains general information on the factors that may need to be considered when dealing with any dangerous goods incident. Guidance, in the form of checklists, is given for both flight crew and cabin crew, and is intended to be used in association with existing emergency procedures established in the aircraft flight manual. In addition, a list of dangerous goods is presented, both alphabetically and by UN (United Nations) number. The list identifies an appropriate emergency response drill for each item and a chart gives details of the drill and identifies other relevant safety matters. The list of dangerous goods presented in this document is based on the Dangerous Goods List (Table 3-1) contained in the 2015–2016 Edition of the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) and reflects, therefore, all additions, deletions and changes to Table 3-1 introduced in that edition of the Technical Instructions. Operators may wish to develop their own material based on this document or they may include all or part of it, such as the list of dangerous goods and the associated drill chart, in their operations manual. The document may also be used in the required dangerous goods training programme for crew members.

August 21, 2014

Dear Colleagues,

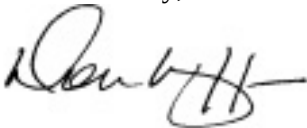
On behalf of the more than 100,000 pilots in over 100 Member Associations around the world represented by the International Federation of Air Line Pilots' Associations (IFALPA), I am pleased to join ICAO in bringing you the latest edition of the Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods. IFALPA is a non-political, non-profit making organization that supports the highest standards in flight safety. When properly prepared and packaged, dangerous goods represent minimal risk in air transportation. Should an incident occur, however, this document will enable flight crewmembers to take the appropriate steps to address the emergency and ensure the safest possible outcome for the flight.

This document is intended to supplement existing emergency procedures established in the aircraft flight manual, which must always be followed. Guidance is given in the form of checklists to be used by both flight and cabin crew in the event of a spill, fire, or other incident involving dangerous goods. General information on cargo compartments, emergency equipment, and accessibility requirements for dangerous goods are provided for reference. This document serves as the key for the flight crew to unlock the information given on the Notification to Pilot-in-Command for dangerous goods shipments; it prescribes the correct steps to be taken for each type of dangerous goods shipment carried aboard aircraft. Through the use of this document, the flight crew can put the information provided by the shipper about the dangerous goods to full use and take the correct actions for the emergency.

The Emergency Response Guidance is also intended to provide cabin crewmembers with appropriate procedures to respond to a spill or incident involving undeclared dangerous goods in the aircraft cabin. Amplified checklists are included to address an incident in the passenger cabin, ensuring that appropriate steps are taken regardless of the commodity. If the undeclared dangerous goods can be identified, an alphabetical list of dangerous goods provided in the guide can be referenced to obtain the correct drill code, and therefore the correct spill and fire-fighting procedures to be used. Furthermore, specific guidance is given on responding to in flight fires involving portable electronic devices, which may contain lithium batteries.

When prepared and handled correctly, dangerous goods may be safely transported aboard aircraft. This guide is the last line of defense for flight and cabin crewmembers in that transportation system, and I am pleased to join ICAO in bringing it to you.

Yours Sincerely,



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President

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Section 1

GENERAL INFORMATION

1.1 CARGO COMPARTMENT CLASSIFICATION

Cargo compartments are classified in most national airworthiness requirements (e.g. FAR 25.857 and JAR 25.857) as follows:

Class A. A Class A cargo or baggage compartment is one in which:

- a) the presence of a fire would be easily discovered by a crew member while at his or her station; and
- b) each part of the compartment is easily accessible in flight.

Class B. A Class B cargo or baggage compartment is one in which:

- a) there is sufficient access in flight to enable a crew member to effectively reach any part of the compartment with the contents of a hand fire extinguisher;
- b) when the access provisions are being used, no hazardous quantity of smoke, flames or extinguishing agent will enter any compartment occupied by the crew or passengers; and
- c) there is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station.

Class C. A Class C cargo or baggage compartment is one not meeting the requirements for either a Class A or B compartment but in which:

- a) there is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station;
- b) there is an approved built-in fire-extinguishing system controllable from the pilot or flight engineer station;
- c) there are means of excluding hazardous quantities of smoke, flames, or extinguishing agent from any compartment occupied by the crew or passengers; and
- d) there are means of controlling ventilation and draughts within the compartment so that the extinguishing agent used can control any fire that may start within the compartment.

Class D. A Class D cargo or baggage compartment is one in which:

- a) a fire occurring in it will be completely confined without endangering the safety of the aeroplane or the occupants;

- b) there are means of excluding hazardous quantities of smoke, flames, or other noxious gases from any compartment occupied by the crew or passengers;
- c) ventilation and draughts are controlled within each compartment so that any fire likely to occur in the compartment will not progress beyond safe limits; and
- d) consideration is given to the effect of heat within the compartment on adjacent critical parts of the aeroplane.

For compartments of 14.2 m³ or less, an airflow of 42.5 m³ per hour is acceptable.

Class E. A Class E cargo compartment is one on aeroplanes used only for the carriage of cargo and in which:

- a) there is a separate approved smoke or fire detector system to give warning at the pilot or flight engineer station;
- b) there are means of shutting off the ventilating airflow to or within the compartment, and the controls for these means are accessible to the flight crew in the crew compartment;
- c) there are means of excluding hazardous quantities of smoke, flames, or noxious gases, from the flight crew compartment; and
- d) the required crew emergency exits are accessible under any cargo loading conditions.

1.2 CARGO COMPARTMENT LOCATIONS

Typically, Class A cargo compartments are small cargo compartments that may be located between the flight deck and the passenger cabin or adjacent to the galley area or at the back of the aircraft.

A Class B cargo compartment is usually much larger than a Class A cargo compartment and can be located in an area remote from the flight deck. Class B cargo compartments are found on “combi” aircraft between the flight deck and the passenger cabin or behind the passenger cabin at the rear of the aircraft.

Note.— A “combi” aircraft is one in which both cargo and passengers are carried on the main deck.

The volume of a Class C cargo compartment is usually larger than Class A or B and such cargo compartments are generally found under the floor in wide-bodied aircraft. A Class C cargo compartment may have two fire extinguishing systems, enabling a second charge of extinguishant to be fired into the cargo compartment some time after the fire has initially been controlled by the first charge.

Instead of being equipped with fire detection and extinguishing systems, Class D cargo compartments are designed to control a fire by severely restricting the supply of oxygen. Class D cargo compartments are to be found under the passenger cabin floor on most jet transport aircraft. However, it must be appreciated that certain dangerous goods are themselves oxygen producers. Therefore, it cannot be assumed that a fire in a Class D cargo compartment will necessarily self-extinguish.

A Class E cargo compartment normally comprises the entire main deck compartment of a cargo aircraft.

A conventional passenger aeroplane is usually fitted with either Class C or Class D cargo compartments under the passenger cabin. A cargo aeroplane is usually fitted with a Class E main deck cargo compartment and with Class D and/or Class C underfloor cargo compartments. A “combi” aeroplane is usually fitted with a Class B main deck cargo compartment, either in front or behind the passenger cabin and with a Class C and/or Class D cargo compartment under the floor. The smaller commuter aeroplane, if not fitted as a conventional passenger aeroplane with a Class D cargo compartment, could be equipped with only a Class A cargo compartment, usually positioned in the area adjacent to the flight deck.

Helicopters are capable of carrying freight either in the main cabin (in a Class A cargo compartment) or under the cabin floor. The cargo compartment under the floor has no classification and the compartment is not capable of withstanding fire for any length of time. Some helicopters have cargo compartments which are at the rear of the aircraft and which are inaccessible from inside the helicopter. These cargo compartments are usually small and they are not fitted with any fire detection systems, extinguishing systems or liners.

1.3 FIRE EXTINGUISHERS

The most common fire extinguishers found on aircraft are those which have halon (BCF), dry agent, carbon dioxide (CO₂) or water as the firefighting agent. All of these types may not be present on any one aircraft. Guidance on the use of the fire extinguishers is contained in the operations manual and may also appear on the extinguishers themselves. The emergency response drills, described in Section 4, indicate which firefighting agents should be used and the instances where the use of water is considered dangerous.

1.4 OXYGEN EQUIPMENT

Fixed and portable oxygen equipment is provided in pressurized aircraft for the use of the crew and passengers. The equipment available to the flight crew usually has a gas-tight mask and can supply 100 per cent oxygen. The aircraft may carry portable smoke hoods but, in general, the equipment available to the cabin crew consists of portable oxygen bottles fitted with therapeutic masks. Additional passenger drop-out masks may be available for use by cabin crew in the passenger cabin and galley/toilet areas. Both the passenger drop-out masks and the therapeutic masks are designed to allow a low flow of oxygen supplemented by air drawn in through valves or holes in the side of the mask. These masks are not intended to be gas-tight and, consequently, any toxic fumes or smoke present will be inhaled by passengers or crew using the masks.

1.5 ACCESSIBILITY OF DANGEROUS GOODS

Dangerous goods bearing the “cargo aircraft only” label are required to be accessible in flight, except for those:

- a) loaded:
 - 1) in a Class C aircraft cargo compartment;
 - 2) in a unit load device equipped with a fire detection/suppression system equivalent to that required by the certification requirements of a Class C aircraft cargo compartment as determined by the appropriate national authority;
 - 3) as external carriage by a helicopter; and

b) classified as:

- 1) flammable liquids (Class 3), Packing Group III, other than those with a subsidiary risk of Class 8;
- 2) toxic substances (Division 6.1) with no subsidiary risk other than Class 3;
- 3) infectious substances (Division 6.2);
- 4) radioactive materials (Class 7); and
- 5) miscellaneous dangerous goods (Class 9).

Other dangerous goods (those which do not bear “cargo aircraft only” labels) are not required to be accessible.

Part 7, Chapter 2 of the Technical Instructions sets out the full requirements on the accessibility of dangerous goods on cargo aircraft.

1.6 EMERGENCY RESPONSE KIT

Some operators provide dangerous goods emergency response kits for use aboard aircraft and also provide training to crew members regarding the use of the kit in dangerous goods incidents. Typically, a dangerous goods emergency response kit contains:

- 1) large, good quality polyethylene bags;
- 2) bag ties; and
- 3) long rubber gloves.

When reference is made in this document to an “emergency response kit”, it is intended that the kit should be comprised of at least this equipment.

Note.— The word “polyethylene” as used in this manual has the same meaning as “polythene”.

Section 2

GENERAL CONSIDERATIONS

2.1 GENERAL

The following are considerations which may need to be taken into account in assessing an appropriate course of action to take in the event of an incident involving dangerous goods. These considerations apply whether the aircraft involved is carrying passengers, cargo or both.

- 1) Consideration should always be given to landing as soon as possible. If the situation permits, the relevant air traffic services should be informed of the dangerous goods on board, as indicated in Part 7, Chapter 4 of the Technical Instructions.
- 2) The appropriate fire or smoke removal emergency procedure approved for the aircraft type should always be carried out. Flight crew oxygen mask and regulators must be on and selected to the 100 per cent oxygen position to prevent the inhalation of smoke or fumes. Using the appropriate smoke removal emergency procedures should reduce the concentration of any contamination and help to avoid recirculation of contaminated air. Air conditioning systems should be operated at maximum capacity and all cabin air vented overboard (no recirculation of air) in order to reduce the concentration of any contamination in the air and to avoid recirculation of contaminated air.
- 3) Reducing altitude will reduce the rate of vaporization of liquid and may reduce the rate of leakage, but it may increase the rate of burning. Conversely, increasing altitude may reduce the rate of burning but may increase the rate of vaporization or leaking. If there is structural damage or the risk of an explosion, consideration should be given to keeping the differential pressure as low as possible.
- 4) The rate of ventilation should not be reduced in an attempt to extinguish a fire, as this will have an incapacitating effect on the passengers without significantly affecting the fire. Passengers are likely to suffocate through lack of oxygen before a fire is extinguished. Passenger survival chances are greatly enhanced by ensuring maximum cabin ventilation.
- 5) Gas-tight breathing equipment should always be worn when attending an incident involving fire or fumes. The use of therapeutic masks with portable oxygen bottles or the passenger drop-out oxygen system to assist passengers in a smoke- or fume-filled cabin should not be considered, since considerable quantities of fumes or smoke would be inhaled through the valves or holes in the masks. A more effective aid to passengers in a smoke- or fume-filled environment would be the use of a wet towel or cloth held over the mouth and nose. A wet towel or cloth aids in filtering and is more effective at doing this than a dry towel or cloth. Cabin crew should take prompt action if smoke or fumes develop and move passengers away from the area involved and, if necessary, provide wet towels or cloths and give instructions to breathe through them.
- 6) In general, water should not be used on a spillage or when fumes are present, since it may spread the spillage or increase the rate of fuming. Consideration should also be given to the possible presence of electrical components when using water extinguishers, but see 10).

- 7) Besides the mandatory emergency equipment that is carried on an aircraft and the emergency response kit provided by some operators, many other items can be found that can be put to good use. These include:
 - bar or catering boxes;
 - oven gloves/fire-resistant gloves;
 - polyethylene bags;
 - blankets; and
 - towels.
- 8) Hands should always be protected before touching suspicious packages or bottles. Fire-resistant gloves or oven gloves covered by polyethylene bags are likely to give suitable protection.
- 9) Care should always be taken when mopping up any spillage or leakage to ensure there will be no reaction between what is to be used for mopping up and the dangerous goods. If it appears there could be a reaction, mopping up should not be attempted but the spillage should be covered with polyethylene bags. If polyethylene bags are not available, care should be taken to ensure there will be no reaction between whatever is used to contain the item and the item itself.
- 10) In case of a spill of known or suspected dangerous goods in powder form, everything affected should be left undisturbed. This type of spill should not be covered with a fire agent or diluted with water. Passengers should be moved away from the area. Switching off recirculation fans should be considered. The area of the spillage should be covered using polyethylene or other plastic bags and blankets. The area should be kept isolated. After landing, only qualified specialists should deal with the situation.
- 11) If a fire has been dealt with successfully and it is obvious that inner packagings are intact, consideration should be given to using water to cool the packages and thus avoid the possibility of reignition, but see 6).
- 12) A smoking ban should be introduced when fumes or vapours are present.
- 13) In any incident in which rescue and firefighting (RFF) personnel come to the aircraft, either when dangerous goods are the cause of the incident or when dangerous goods are being carried on the aircraft and are not directly involved in the incident, a procedure should be established to ensure that the pilot-in-command's dangerous goods notification form is immediately made available to the RFF services. Such a procedure might require the first flight crew member to leave the aircraft in the event of an emergency evacuation to deliver the pilot-in-command's notification to the senior member of the RFF personnel.
- 14) If an incident involves a chemical substance which can be identified (by the UN proper shipping name or number, or by any other means), it may be possible, in some circumstances, to obtain helpful information from the various national chemical databanks. These databanks normally maintain 24-hour telephone accessibility and so can be reached by a phone-patch procedure. Examples of such databanks are:

United States — CHEMTREC

www.chemtrec.com

Canada — CANUTEC

www.tc.gc.ca/eng/canutec/menu.htm



2.2 DANGEROUS GOODS IN THE PASSENGER CABIN

Apart from the exceptions listed in Part 8 of the Technical Instructions, dangerous goods are not permitted in the passenger cabin. Nevertheless, dangerous goods may be carried into the cabin by passengers who are unaware of, or deliberately ignore, the requirements of the Technical Instructions concerning passengers and their baggage. It is also possible that an item to which a passenger is legitimately entitled (e.g. an item for medical purposes) may cause an incident.

Note.— See 3.3 — Cabin crew checklists for dangerous goods incidents in the passenger cabin during flight.

2.3 DANGEROUS GOODS IN THE UNDERFLOOR CARGO COMPARTMENTS

Dangerous goods may be carried as cargo in the underfloor cargo compartments. Spillages or leakages are unlikely to be detected during flight unless they cause noticeable fumes in the passenger cabin or on the flight deck. In the event of leakage, the air in the passenger cabin and on the flight deck may have become flammable, irritating or toxic. Non-essential electrics should be turned off and smoking should be prohibited. Also, the crew should use full face masks, (100 per cent oxygen) or smoke hoods. Wherever possible, the passengers should be provided with wet towels or cloths for use over the nose and mouth.

Smoke or fire in an underfloor cargo compartment may not have originated from any dangerous goods loaded in that compartment. Such goods, however, may be affected by any fire. Standard aircraft emergency procedures should always be followed to deal with the smoke or fire.

In some aircraft there is access from inside the aircraft to underfloor Class D cargo compartments. In general, even if access is possible, an entry should not be made since this will allow air to enter the compartment, which may worsen the situation.

If an incident has arisen in an underfloor cargo compartment, the passengers and crew should be evacuated from the aircraft before any attempt is made to open the cargo compartment doors. The cargo compartment doors should be opened with the emergency services in attendance.

2.4 DANGEROUS GOODS ON THE MAIN DECK OF “COMBI” AIRCRAFT

Note.— A “combi” aircraft is one in which both cargo and passengers are carried on the main deck.

Spillages or leakages of dangerous goods which cause fumes may be detected in the passenger cabin or on the flight deck. Smoke or fire which is detected may not have originated from any dangerous goods which are loaded in the cargo compartment but those goods may be affected by any fire.

The recommended aircraft emergency procedures for smoke and fire should always be followed. However, any action taken to evacuate smoke may not necessarily help to control a fire.

Although it may be possible to enter the cargo compartment from inside the aircraft, this should be done with great care so as not to allow smoke or fumes to enter the passenger cabin or flight deck.

However, if the decision is taken to enter the cargo compartment and the cause of the incident is discovered to be dangerous goods, reference should be made to Section 4 of this document, which contains a list of dangerous goods and the relevant emergency response drills and gives guidance for dealing with the incident.

Smoke or fumes may enter the passenger cabin or flight deck. If this happens, the crew should assume that the aircraft's atmosphere has possibly become contaminated with irritating, flammable or toxic fumes and appropriate action should be taken. This should include the use by the crew of full face masks (100 per cent oxygen) or smoke hoods, as appropriate. Wherever possible, passengers should be provided with wet towels or cloths with instructions to place them over the nose and mouth. All non-essential electrics should be turned off and smoking should be prohibited. Smoke evacuation emergency procedures should be carried out as soon as possible to ventilate the cabin to the maximum extent possible.

If an incident has arisen in a main deck cargo compartment, the passengers and crew should be evacuated from the aircraft before any attempt is made to open the cargo compartment doors. The cargo compartment doors should be opened with the emergency services in attendance.

2.5 DANGEROUS GOODS ON CARGO AIRCRAFT

Dangerous goods may be carried on cargo aircraft in either the underfloor cargo compartments or on the main deck.

Incidents in an underfloor cargo compartment. See 2.3.

Incidents in the main deck cargo compartment. Dangerous goods carried on the main deck of a cargo aircraft fall into two broad categories:

- a) those which are permitted either for carriage on a passenger aircraft, or which are cargo aircraft only (CAO) dangerous goods or quantities not subject to additional loading requirements applicable to other CAO dangerous goods. Depending on the circumstances (position on main deck, types of unit load devices (ULDs) used, etc.), these may be completely inaccessible.
- b) those which may only be carried on a cargo aircraft and are subject to additional loading requirements which are set out in Part 7;2.4.1 of the Technical Instructions. These dangerous goods may be required to be accessible which means they must be loaded so that the crew can handle and, where size and mass permit, separate such packages or overpacks from other cargo. In the event of an incident involving these dangerous goods, an assessment will have to be made of the practicality of attempting direct physical intervention. In any event, both for accessible and non-accessible dangerous goods, standard aircraft emergency procedures should always be followed.

An attempt should be made to establish the cause of an incident occurring on the main deck. The following actions can be considered:

- Attempt to locate the source of the incident and identify whether there are fumes or smoke or evidence of spillage or leakage.
- Follow the appropriate aircraft emergency procedures for fire or for smoke removal if fumes or smoke are present.
- Identify the dangerous goods involved and use the notification to pilot-in-command (see Technical Instructions, Part 7, Chapter 4) to confirm the name and/or UN number of the goods.
- After establishing the identity of the dangerous goods, refer to Section 4 and from either the alphabetical or numerical list of dangerous goods note the drill assigned to the particular item.
- Refer to the chart in Section 4 and use the guidance given against the appropriate emergency response drill to deal with the incident.

Section 3

EXAMPLES OF DANGEROUS GOODS INCIDENTS CHECKLISTS

3.1 CHECKLIST FOR DANGEROUS GOODS INCIDENTS

<i>Step</i>	<i>Action</i>
1.	FOLLOW THE APPROPRIATE AIRCRAFT EMERGENCY PROCEDURES FOR FIRE OR SMOKE REMOVAL
2.	NO SMOKING SIGN ON
3.	CONSIDER LANDING AS SOON AS POSSIBLE
4.	CONSIDER TURNING OFF NON-ESSENTIAL ELECTRICAL POWER
5.	DETERMINE SOURCE OF SMOKE / FUMES / FIRE
6.	FOR DANGEROUS GOODS INCIDENTS IN THE PASSENGER CABIN, SEE CABIN CREW CHECKLIST AND COORDINATE COCKPIT / CABIN CREW ACTIONS
7.	DETERMINE EMERGENCY RESPONSE DRILL CODE
8.	USE GUIDANCE FROM AIRCRAFT EMERGENCY RESPONSE DRILLS CHART TO HELP DEAL WITH INCIDENT
9.	IF THE SITUATION PERMITS, NOTIFY ATC OF THE DANGEROUS GOODS BEING CARRIED
<i>After landing</i>	
1.	DISEMBARK PASSENGERS AND CREW BEFORE OPENING ANY CARGO COMPARTMENT DOORS
2.	INFORM GROUND PERSONNEL / EMERGENCY SERVICES OF NATURE OF ITEM AND WHERE STOWED
3.	MAKE APPROPRIATE ENTRY IN MAINTENANCE LOG

3.2 AMPLIFIED CHECKLIST FOR DANGEROUS GOODS INCIDENTS

Amplified checklist for dangerous goods incidents	
Step	Action
1.	FOLLOW THE APPROPRIATE AIRCRAFT EMERGENCY PROCEDURES FOR FIRE OR SMOKE REMOVAL (self-explanatory)
2.	NO SMOKING SIGN ON A smoking ban should be introduced when fumes or vapours are present and be continued for the remainder of the flight.
3.	CONSIDER LANDING AS SOON AS POSSIBLE Because of the difficulties and possibly disastrous consequences of any dangerous goods incident, consideration should be given to landing as soon as possible. The decision to land at the nearest suitable aerodrome should be made early rather than late, when an incident may have developed to a very critical point, severely restricting operational flexibility.
4.	CONSIDER TURNING OFF NON-ESSENTIAL ELECTRICAL POWER As the incident may be caused by electrical problems or as electrical systems may be affected by any incident, and particularly as firefighting activities, etc., may damage electric systems, turn off all non-essential electrical items. Retain power only to those instruments, systems and controls necessary for the continued safety of the aircraft. Do not restore power until it is positively safe to do so.
5.	DETERMINE SOURCE OF SMOKE / FUMES / FIRE The source of any smoke / fumes / fire may be difficult to determine. Effective firefighting or containment procedures can best be accomplished when the source of the incident is identified.
6.	FOR DANGEROUS GOODS INCIDENTS IN THE PASSENGER CABIN, SEE CABIN CREW CHECKLIST AND COORDINATE COCKPIT / CABIN CREW ACTIONS Incidents in the passenger cabin should be dealt with by the cabin crew using the appropriate checklist and procedures. It is essential that the cabin crew and the flight crew coordinate their actions and that each be kept fully informed of the other's actions and intentions.

Amplified checklist for dangerous goods incidents	
Step	Action
7.	DETERMINE EMERGENCY RESPONSE DRILL CODE When the item has been identified, the corresponding entry on the pilot-in-command's dangerous goods notification form should be found. The applicable emergency response drill code may be given on the notification form, or if not given, can be found by noting the proper shipping name or the UN number on the notification form and using the alphabetical or numerical list of dangerous goods. If the item causing the incident is not listed on the notification form, an attempt should be made to determine the name or the nature of the substance. The alphabetical list can then be used to determine the emergency response drill code. <i>Note.— The alphabetical and numerical lists referred to are those in Section 4 of this document.</i>
8.	USE GUIDANCE FROM AIRCRAFT EMERGENCY RESPONSE DRILLS CHART TO HELP DEAL WITH INCIDENT The drill code assigned to an item of dangerous goods consists of a number from 1 to 11, plus a single letter. Referring to the chart of emergency response drills, each drill number corresponds to a line of information concerning the risk posed by that substance and guidance on the preferable action that should be taken. The drill letter is shown separately on the drill chart; it indicates other possible hazards of the substance. In some cases, the guidance given by the drill number may be further refined by the information given by the drill letter.
9.	IF THE SITUATION PERMITS, NOTIFY ATC OF THE DANGEROUS GOODS BEING CARRIED If an in-flight emergency occurs and the situation permits, the pilot-in-command should inform the appropriate air traffic services unit of the dangerous goods on board the aircraft. Wherever possible this information should include the proper shipping name and/or UN number, the class/division and for Class 1 the compatibility group, any identified subsidiary risk(s), the quantity and the location on board the aircraft. When it is not considered possible to include all the information, those parts thought most relevant in the circumstances should be given.

Amplified checklist for dangerous goods incidents	
Step	Action
After landing	
1.	DISEMBARK PASSENGERS AND CREW BEFORE OPENING ANY CARGO COMPARTMENT DOORS Even if it has not been necessary to complete an emergency evacuation after landing, passengers and crew should disembark before any attempt is made to open the cargo compartment doors and before any further action is taken to deal with a dangerous goods incident. The cargo compartment doors should be opened with the emergency services in attendance.
2.	INFORM GROUND PERSONNEL / EMERGENCY SERVICES OF NATURE OF ITEM AND WHERE STOWED Upon arrival, take the necessary steps to identify to the ground staff where the item is stowed. Pass on by the quickest available means all information about the item including, when appropriate, a copy of the notification to pilot-in-command.
3.	MAKE APPROPRIATE ENTRY IN MAINTENANCE LOG An entry should be made in the maintenance log that a check needs to be carried out to ensure that any leakage or spillage of dangerous goods has not damaged the aircraft structure or systems and that some aircraft equipment (e.g. fire extinguishers, emergency response kit, etc.) may need replenishing or replacing.

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

This section consists of cabin crew checklists for dangerous goods incidents in the passenger cabin during flight involving:

- a) battery / portable electronic device (PED) fire / smoke (see 3.3.1);
- b) overhead bin battery / portable electronic device (PED) fire / smoke (see 3.3.2);
- c) overheated battery / electrical smell involving a portable electronic device (PED) — no visible fire or smoke (see 3.3.3);
- d) PED inadvertently crushed or damaged in electrically adjustable seat (see 3.3.4);
- e) fire involving dangerous goods (see 3.3.5); and
- f) spillage or leakage of dangerous goods (see 3.3.6)

3.3.1 Battery / portable electronic device (PED) fire / smoke

Checklist for 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 a) Obtain and use the appropriate fire extinguisher. b) Retrieve and use protective equipment, as applicable to the situation. c) Move passengers away from the area, if possible. d) Notify pilot-in-command / other cabin crew members. <i>Note.— Actions should occur simultaneously in a multi-crew operation.</i>
3.	REMOVE POWER a) Disconnect the device from the power supply, if safe to do so. b) Turn off in-seat power, if applicable. c) Verify that power to the remaining electrical outlets remains off, if applicable. Caution: Do not attempt to remove the battery from the device.

Checklist for battery / portable electronic device (PED) fire / smoke	
Step	Cabin crew action
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 REIGNITION a) If smoke or flames reappear, repeat Steps 2 and 4. Caution: — Do not attempt to pick up or move the device. — Do not cover or enclose the device. — Do not use ice or dry ice to cool the device.
6.	WHEN THE DEVICE HAS COOLED (e.g. approximately 10 to 15 minutes) a) Obtain a suitable empty container. b) Fill the container with enough water (or other non-flammable liquid) to submerge the device. c) Using protective equipment, place the device in the container and completely submerge in water (or other non-flammable liquid). d) Stow and secure (if possible) 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 a) Apply operator's post-incident procedures.

3.3.2 Overhead bin battery / portable electronic device (PED) fire / smoke

Checklist of overhead bin battery / portable electronic device (PED) fire / smoke	
Step	Cabin crew action
1.	APPLY FIRE-FIGHTING PROCEDURE a) Obtain and use the appropriate fire extinguisher. b) Retrieve and use protective equipment, as applicable to the situation. c) Move passengers away from the area, if possible. d) Notify pilot-in-command / other cabin crew members. <i>Note.— Actions should occur simultaneously in a multi-crew operation.</i>

Checklist of overhead bin battery / portable electronic device (PED) fire / smoke	
<i>Step</i>	<i>Cabin crew action</i>
2.	IDENTIFY THE ITEM If the device is visible and accessible, or, if the device is contained in baggage and flames are visible: a) Re-apply Step 1 to extinguish the flames, if applicable. b) Apply Steps 3 to 5. If smoke is coming from the overhead bin, but the device is not visible or accessible: c) Remove other baggage from the overhead bin to access the affected baggage/item. d) Identify the item. e) 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 a) Obtain a suitable empty container. b) Fill the container with enough water (or other non-flammable liquid) to submerge the device. c) Using protective equipment, place the device in the container and completely submerge in water (or other non-flammable liquid). d) Stow and secure (if possible) 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 a) Apply operator's post-incident procedures.

3.3.3 Overheated battery / electrical smell involving a portable electronic device (PED) — no visible fire or smoke

Checklist for 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 (see 3.3.1).
6.	AFTER LANDING AT THE NEXT DESTINATION Apply operator's post-incident procedures.

3.3.4 PED inadvertently crushed or damaged in electrically adjustable seat

Checklist for 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

Checklist for PED inadvertently crushed or damaged in electrically adjustable seat	
Step	Cabin crew action
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 a) Apply BATTERY / PED FIRE / SMOKE checklist (see 3.3.1).
6.	AFTER LANDING AT THE NEXT DESTINATION a) Apply operator's post-incident procedures.

3.3.5 Fire involving dangerous goods

Checklist for fire involving dangerous goods	
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 a) Obtain and use the appropriate fire extinguisher / check use of water. b) Retrieve and use protective equipment, as applicable to the situation. c) Move passengers away from the area, if possible. d) Notify pilot-in-command / other cabin crew members. <i>Note.— Actions should occur simultaneously in a multi-crew operation.</i>
3.	MONITOR FOR ANY REIGNITION a) If smoke/flames reappear, repeat Step 2.
4.	ONCE THE FIRE HAS BEEN EXTINGUISHED a) Apply SPILLAGE OR LEAKAGE OF DANGEROUS GOODS checklist, if required (see 3.3.6).

Checklist for fire involving dangerous goods	
Step	Cabin crew action
5.	AFTER LANDING AT THE NEXT DESTINATION a) Apply operator's post-incident procedures.

3.3.6 Spillage or leakage of dangerous goods

Checklist for spillage or leakage of dangerous goods	
Step	Cabin crew action
1.	NOTIFY THE PILOT-IN-COMMAND / OTHER CABIN CREW MEMBERS
2.	IDENTIFY THE ITEM
3.	COLLECT EMERGENCY RESPONSE KIT OR OTHER USEFUL ITEMS
4.	DON RUBBER GLOVES AND SMOKE HOOD
5.	MOVE PASSENGERS AWAY FROM AREA AND DISTRIBUTE WET TOWELS OR CLOTHS
6.	PLACE DANGEROUS GOODS ITEM IN POLYETHYLENE BAGS
7.	STOW POLYETHYLENE BAGS
8.	TREAT AFFECTED SEAT CUSHIONS / COVERS IN THE SAME MANNER AS DANGEROUS GOODS ITEM
9.	COVER SPILLAGE ON CARPET / FLOOR
10.	REGULARLY INSPECT ITEMS STOWED AWAY / CONTAMINATED FURNISHINGS
11.	AFTER LANDING AT THE NEXT DESTINATION a) Apply operator's post-incident procedures.

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3.4 AMPLIFIED CABIN CREW CHECKLISTS FOR DANGEROUS GOODS INCIDENTS IN THE PASSENGER CABIN DURING FLIGHT

This section consists of amplified cabin crew checklists for dangerous goods incidents in the passenger cabin during flight involving:

- a) battery / portable electronic device (PED) fire / smoke (see 3.4.1);
- b) overhead bin battery / portable electronic device (PED) fire / smoke (see 3.4.2);
- c) overheated battery / electrical smell involving a portable electronic device (PED) — no visible fire or smoke (see 3.4.3);
- d) PED inadvertently crushed or damaged in electrically adjustable seat (see 3.4.4);
- e) fire involving dangerous goods (see 3.4.5); and
- f) spillage or leakage of dangerous goods (see 3.4.6).

Note.— Although this guidance material presents sequences of tasks, some of these actions occur simultaneously when carried out by crew members.

3.4.1 Battery / portable electronic device (PED) fire / smoke

Amplified checklist for battery / portable electronic device (PED) fire / smoke	
Step	Cabin crew action
1.	IDENTIFY THE ITEM It may not be possible to identify the item (source of fire) right away, especially if the fire has started in a seat pocket or the device is not readily accessible. In this case, fire-fighting procedures should be applied as a first step. If the item is contained in baggage, the crew's actions would be similar to the actions for a device that is visible or readily accessible. 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. However, in certain situations cabin crew members may assess and deem it necessary to slightly open baggage to allow entry of the extinguishing agent and non-flammable liquid. This should be done with extreme caution and only after donning appropriate protective equipment available on the aircraft.
2.	APPLY FIRE-FIGHTING PROCEDURE Any occurrence concerning a fire in the cabin should be notified immediately to the pilot-in-command who should be kept informed of all actions taken and of the effect. It is essential that the cabin crew and the flight crew coordinate their actions and that each are kept fully informed of the other's actions and intentions.

Amplified checklist for battery / portable electronic device (PED) fire / smoke	
<i>Step</i>	<i>Cabin crew action</i>
	Appropriate fire-fighting and emergency procedures must be used to deal with any fire. In a multi-cabin crew operation, the actions detailed in the fire-fighting procedure should be conducted simultaneously. On aircraft operated with only one cabin crew member, the aid of a passenger should be sought in dealing with the situation. Halon, Halon replacement or water extinguisher should be used to extinguish the fire and prevent its spread to additional flammable materials. It is important to wear available protective equipment (e.g. protective breathing equipment, fire gloves) when fighting a fire. If fire develops, cabin crew should take prompt action to move passengers away from the area involved and, if necessary, provide wet towels or cloths and give instructions for passengers to breathe through them. Minimizing the spreading of smoke and fumes into the flight deck is critical for the continued safe operation of the aircraft, therefore it is essential to keep the flight deck door closed at all times. Crew communication and coordination is of utmost importance. The use of the interphone is the primary means of communication unless the interphone system fails.
3.	REMOVE POWER It is important to instruct the passenger to disconnect the device from the power supply, if it is deemed safe to do so. A battery has a higher likelihood of catching fire due to overheating during or immediately following a charging cycle, although the effects may be delayed for some period of time. By removing the external power supply from the device, it will be assured that additional energy is not being fed to the battery to promote a fire. Turn off the in-seat power to the remaining electrical outlets until it can be assured that a malfunctioning aircraft system does not contribute to additional failures of the passengers' portable electronic devices. Visually check that power to the remaining electrical outlets remains off until the aircraft's system can be determined to be free of faults, if the device was previously plugged in. The removal of power may occur simultaneously to other cabin crew actions (e.g. obtaining water to douse the device). Depending on the aircraft type, in-seat power may have to be turned off by the flight crew members. Caution: Do not attempt to remove the battery from the device.

Amplified checklist for battery / portable electronic device (PED) fire / smoke	
<i>Step</i>	<i>Cabin crew action</i>
4.	DOUSE THE DEVICE WITH WATER (OR OTHER NON-FLAMMABLE LIQUID) Water (or other non-flammable liquid) must be used to cool a battery that has ignited to prevent the spread of heat to other cells in the battery. If water is not available, any non-flammable liquid may be used to cool the device. <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 REIGNITION A battery involved in a fire can reignite and emit flames multiple times as heat is transferred to other cells in the battery. Therefore, the device must be monitored regularly to identify if there is any indication that a fire risk may still exist. If there is any smoke or indication of fire, the device must be doused with more water (or other non-flammable liquid). Caution: a) Do not attempt to pick up or move the device; batteries may explode or burst into flames without warning. The device must not be moved if displaying any of the following: flames/flaring, smoke, unusual sounds (such as crackling), debris, or shards of material separating from the device. b) Do not cover or enclose the device as it could cause it to overheat. c) Do not use ice or dry ice to cool the device. Ice or other materials insulate the device, increasing the likelihood that additional battery cells will reach thermal runaway.
6.	WHEN THE DEVICE HAS COOLED (E.G. APPROXIMATELY 10-15 MINUTES) The device can be moved with caution following a certain period, once it has cooled down and if there is no evidence of smoke, heat, or if there is a reduction in the crackling or hissing sound usually associated with a lithium battery fire (e.g. after approximately 10-15 minutes). The waiting period may vary based on the device and its size. The different circumstances (e.g. types of devices, phase of flight, etc.) should be addressed in the operator's training programme. A suitable empty container, such as a pot, jug, galley unit or toilet waste bin, must be filled with enough water or non-flammable liquid to completely submerge the device. It is important to wear available protective equipment (e.g. protective breathing equipment, fire gloves), when moving any device involved in a fire. Once the device is completely submerged, the container used must be stowed and, if possible, secured to prevent spillage.
7.	MONITOR THE DEVICE AND THE SURROUNDING AREA FOR THE REMAINDER OF THE FLIGHT Monitor the device and the surrounding area for the remainder of the flight to verify that the device does not pose further risk.

Amplified checklist for battery / portable electronic device (PED) fire / smoke	
Step	Cabin crew action
8.	AFTER LANDING AT THE NEXT DESTINATION Upon arrival, apply the operator's post-incident procedures. These may include identifying to ground personnel where the item is stowed and providing all information about the item. Complete the required documentation, as per operator procedures, so that the operator is notified of the event, proper maintenance action is undertaken and the emergency response kit or any aircraft equipment used is replenished or replaced, if applicable.

3.4.2 Overhead bin battery / portable electronic device (PED) fire / smoke

Amplified checklist for overhead bin battery / portable electronic device (PED) fire / smoke	
Step	Cabin crew action
1.	APPLY FIRE-FIGHTING PROCEDURE Any occurrence concerning a fire in the cabin should be notified immediately to the pilot-in-command who should be kept informed of all actions taken and of the effect. It is essential that the cabin crew and the flight crew coordinate their actions and that each are kept fully informed of the other's actions and intentions. Appropriate fire-fighting and emergency procedures must be used to deal with an overhead bin fire. In a multi-cabin crew operation, the actions detailed in the fire-fighting procedure should be conducted simultaneously. On aircraft operated with only one cabin crew member, the aid of a passenger should be sought in dealing with the situation. Halon, Halon replacement or water extinguisher should be used to extinguish the fire and prevent its spread to additional flammable materials. It is important to wear available protective equipment (e.g. protective breathing equipment, fire gloves) when fighting a fire. If fire develops, cabin crew should take prompt action to move passengers away from the area involved and, if necessary, provide wet towels or cloths and give instructions for passengers to breathe through them. Minimizing the spreading of smoke and fumes into the flight deck is critical for the continued safe operation of the aircraft, therefore it is essential to keep the flight deck door closed at all times. Crew communication and coordination is of utmost importance. The use of the interphone is the primary means of communication unless the interphone system fails.

Amplified checklist for overhead bin battery / portable electronic device (PED) fire / smoke	
Step	Cabin crew action
2.	IDENTIFY THE ITEM It may not be possible to identify the item right away, especially if the fire has started in the overhead bin and the device is not readily accessible. If the device is visible and accessible or if the device is contained in baggage and flames are visible, the fire-fighting procedures should be applied as a first step. If smoke is coming from the overhead bin, but the device is not visible or accessible, or there is no indication of fire, the fire-fighting procedures should be applied as a first step. Afterwards, all baggage should be removed from the overhead bin with caution until the item can be identified. Once the item is identified, 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. However, in certain situations cabin crew members may assess and deem it necessary to slightly open baggage to allow entry of the extinguishing agent and non-flammable liquid. This should be done with extreme caution and only after donning appropriate protective equipment available on the aircraft.
3.	DOUSE THE DEVICE (BAGGAGE) WITH WATER (OR OTHER NON-FLAMMABLE LIQUID) Water (or other non-flammable liquid) must be used to cool a battery that has ignited to prevent the spread of heat to other cells in the battery. If water is not available, any non-flammable liquid may be used to cool the device. <i>Note.— Liquid may turn to steam when applied to the hot battery.</i>
4.	WHEN THE DEVICE HAS COOLED The device should be moved from the overhead bin to prevent a hidden fire from potentially developing. The device can be moved with caution following a certain period, once it has cooled down and if there is no evidence of smoke, heat, or if there is a reduction in the crackling or hissing sound usually associated with a lithium battery fire. The waiting period may vary based on the device and its size. The different circumstances (e.g. types of devices, phase of flight, etc.) should be addressed in the operator's training programme. A suitable empty container, such as a pot, jug, galley unit or toilet waste bin, must be filled with enough water or non-flammable liquid to completely submerge the device. It is important to wear available protective equipment (e.g. protective breathing equipment, fire gloves), when moving any device involved in a fire. Once the device is completely submerged, the container used must be stowed and, if possible, secured to prevent spillage.

Amplified checklist for overhead bin battery / portable electronic device (PED) fire / smoke	
<i>Step</i>	<i>Cabin crew action</i>
5.	MONITOR THE DEVICE AND THE SURROUNDING AREA FOR THE REMAINDER OF THE FLIGHT Monitor the device and the surrounding area for the remainder of the flight to verify that the device does not pose further risk.
6.	AFTER LANDING AT THE NEXT DESTINATION Upon arrival, apply the operator's post-incident procedures. These may include identifying to ground personnel where the item is stowed and providing all information about the item. Complete the required documentation, as per operator procedures, so that the operator is notified of the event, proper maintenance action is undertaken and the emergency response kit or any aircraft equipment used is replenished or replaced, if applicable.

3.4.3 Overheated battery / electrical smell involving a portable electronic device (PED) — no visible fire or smoke

Amplified checklist for overheated battery / electrical smell involving a portable electronic device (PED) — no visible fire or smoke	
<i>Step</i>	<i>Cabin crew action</i>
1.	IDENTIFY THE ITEM Identify the source of overheat or electrical smell. Ask the passenger concerned to identify the item.
2.	INSTRUCT THE PASSENGER TO TURN OFF THE DEVICE IMMEDIATELY It is important to instruct the passenger to turn off the device immediately.
3.	REMOVE POWER It is important to instruct the passenger or crew member to disconnect the device from the power supply, if it is deemed safe to do so. A battery has a higher likelihood of catching fire due to overheating during or immediately following a charging cycle, although the effects may be delayed for some period of time. By removing the external power supply from the device, it will be assured that additional energy is not being fed to the battery to promote a fire.

Amplified checklist for overheated battery / electrical smell involving a portable electronic device (PED) — no visible fire or smoke	
<i>Step</i>	<i>Cabin crew action</i>
	Turn off the in-seat power to the remaining electrical outlets until it can be assured that a malfunctioning aircraft system does not contribute to additional failures of the passengers' portable electronic devices. Visually check that power to the remaining electrical outlets remains off until the aircraft's system can be determined to be free of faults, if the device was previously plugged in. The removal of power may occur simultaneously to other cabin crew actions (e.g. obtaining water to douse the device). Depending on the aircraft type, in-seat power may have to be turned off by the flight crew members. It is important to verify that the device remains turned off for the duration 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 The device must remain visible (not stowed such as in baggage or seat pocket or on a person (pocket)) and should be monitored closely. Unstable batteries may ignite even after the device is turned off. Verify that the device is stowed for landing.
5.	IF SMOKE OR FLAMES APPEAR If smoke or flames appear, apply the BATTERY / PORTABLE ELECTRONIC DEVICE (PED) FIRE / SMOKE checklist (see 3.4.1).
6.	AFTER LANDING AT THE NEXT DESTINATION Upon arrival, apply the operator's post-incident procedures. These may include identifying to ground personnel where the item is stowed and providing all information about the item. Complete the required documentation, as per operator procedures, so that the operator is notified of the event, proper maintenance action is undertaken and the emergency response kit or any aircraft equipment used is replenished or replaced, if applicable.