International Civil Aviation Organization

DGP-WG/LB/2-WP/3
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WORKING PAPER

DANGEROUS GOODS PANEL (DGP)
WORKING GROUP ON LITHIUM BATTERIES

SECOND MEETING

Montréal, 7 to 11 April 2014

Agenda Item 2: Guidance on procedures for cabin crew to address cabin incidents involving lithium batteries in the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481)

PROPOSED AMENDMENTS TO THE EMERGENCY RESPONSE GUIDANCE FOR AIRCRAFT INCIDENTS INVOLVING DANGEROUS GOODS

(Presented by the Secretary)

SUMMARY

New guidance material on procedures for addressing incidents involving lithium batteries in the cabin was agreed by the Twenty-Fourth Meeting of the Dangerous Goods Panel (DGP/24) for incorporation in the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481), subject to a review by members of the ICAO Cabin Safety Group (ICSG). The ICSG has developed a revised proposal for consideration by the DGP-WG/LB. If agreed, it will be included in the 2015-2016 Edition of Doc 9481.

DGP-WG/LB/2 is invited to agree to the proposed amendment to Doc 9481 contained in the appendix to this working paper.

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APPENDIX A

PROPOSED AMENDMENT TO THE EMERGENCY RESPONSE GUIDANCE FOR AIRCRAFT INCIDENTS INVOLVING DANGEROUS GOODS (DOC 9481)

Editorial Note.— Replace Section 3.3 and 3.4 with the following:

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

BATTERY / PORTABLE ELECTRONIC DEVICE (PED) FIRE	
Step	**Cabin Crew Action**
1.	Identify the item *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.*
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 *Note. — Actions should occur simultaneously in a multi-crew operation*
3.	Remove power: i. Disconnect the device from the power supply, if applicable 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) *Note.— Liquid may turn to steam when applied to the hot battery*
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 can be safely moved: 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 *Note. — Actions should occur simultaneously in a multi-crew operation*
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 baggage from the overhead bin ii. Identify the item iii. Apply Steps 3 to 5 Caution: Do not open baggage when there is any indication of smoke or flame
3.	Douse the device with water (or other non-flammable liquid) *Note.— Liquid may turn to steam when applied to the hot battery*
4.	When the device can be safely moved: 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: i. Disconnect the device from the power supply, if applicable ii. Turn off in-seat power, if applicable iii. Verify that power to the remaining electrical outlets remains off, if applicable iv. Verify that the device remains off for the remainder of the flight Caution: Do not attempt to remove the battery from the device
4.	Keep the device visible and monitor closely Caution: i. Unstable batteries may ignite even after the device is turned off
5.	If smoke or flames appear: i. Apply **BATTERY / PED FIRE** checklist
6.	After landing at the next destination: i. Apply operator's post-incident procedures

FIRE INVOLVING DANGEROUS GOODS	
Step	**Cabin Crew Action**
1.	Identify the item *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.*
2.	Apply fire-fighting procedure: i. Obtain and use the appropriate fire extinguisher / check use of water 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 *Note. — Actions should occur simultaneously in a multi-crew operation*
3.	Monitor for any re-ignition: i. If smoke/flames re-appear, repeat Step 2.
4.	Once the fire has been extinguished: i. Apply **SPILLAGE OR LEAKAGE OF DANGEROUS GOODS** checklist, if required.
5.	After landing at the next destination: i. Apply operator's post-incident procedures

SPILLAGE OR LEAKAGE OF DANGEROUS GOODS	
Step	**Cabin Crew Action**
1.	Notify 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: i. Apply operator's post-incident procedures

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

3.4.1 BATTERY / PORTABLE ELECTRONIC DEVICE (PED) FIRE

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. Once it is possible to do so, identify the item after the fire is under control.

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.

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. 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.

Caution:
Do not attempt to remove the battery from the device.

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.

Note.— Liquid may turn to steam when applied to the hot battery.

5. LEAVE THE DEVICE IN ITS PLACE AND MONITOR FOR ANY RE-IGNITION

A battery involved in a fire can re-ignite 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:

i. 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;
ii. Do not cover or enclose the device as it could cause it to overheat; and
iii. 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 CAN BE SAFELY MOVED

The device can be safely moved following a certain period 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 10-15 minutes). The waiting period may vary based on the device and its size. Following this period, the device can be moved, with caution.

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.

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

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.

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 of the OVERHEAD BIN BATTERY / PORTABLE ELECTRONIC DEVICE (PED) FIRE / SMOKE checklist.

Caution:
Do not open baggage when there is any indication of smoke or flame.

3. 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.

Note.— Liquid may turn to steam when applied to the hot battery.

4. WHEN THE DEVICE CAN BE SAFELY MOVED

The device should be moved from the overhead bin to prevent a hidden fire from potentially developing. The device can be safely moved following a certain period 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. Following this period, the device can be moved, with caution.

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.

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

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. 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.

It is important to verify that the device remains powered off for the duration of the flight.

Caution:
Do not attempt to remove the battery from the device.

4. 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 checklist.

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.

3.4.4 FIRE INVOLVING DANGEROUS GOODS

1. IDENTIFY THE ITEM

Ask the passenger concerned to identify the item. The passenger may be able to give some guidance on the hazard(s) involved and how these could be dealt with. If the passenger can identify the item, refer to Section 4 for the appropriate emergency response drill.

It may not be possible to identify the item right away, especially if the source of the fire is unknown or the item is not readily accessible. In this case, fire-fighting procedures should be applied as a first step. Once it is possible to do so, identify the item after the fire is under control.

2. APPLY THE 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 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.

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.

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. MONITOR FOR ANY RE-IGNITION

Monitor the area regularly to identify if there is any indication that a fire risk may still exist. If there is any smoke or indication of fire continue to apply the fire-fighting procedure.

4. ONCE THE FIRE HAS BEEN EXTINGUISHED

In the event of a fire involving dangerous goods, the SPILLAGE OR LEAKAGE INVOLVING DANGEROUS GOODS checklist may need to be applied once the fire has been extinguished.

5. 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.

3.4.5 SPILLAGE OR LEAKAGE INVOLVING DANGEROUS GOODS

1. NOTIFY PILOT-IN-COMMAND

Any incident concerning dangerous goods should be notified immediately to the pilot-in-command who should be kept informed of all actions taken and of their 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.

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.

2. IDENTIFY THE ITEM

Ask the passenger concerned to identify the item and indicate its potential hazards. The passenger may be able to give some guidance on the hazard(s) involved and how these could be dealt with. If the passenger can identify the item, refer to Section 4 for the appropriate emergency response drill.

On aircraft with only one cabin crew member, consult with the pilot-in-command as to whether the aid of a passenger should be sought in dealing with the incident.

3. COLLECT EMERGENCY RESPONSE KIT OR OTHER USEFUL ITEMS

Collect emergency response kit, if provided, or collect for use in dealing with the spillage or leakage:

— a supply of paper towels or newspapers or other absorbent paper or absorbent fabric (e.g. seat cushion covers, head rest protectors);

— oven gloves or fire-resistant gloves, if available;
— at least two large polyethylene waste bin bags; and

— at least three smaller polyethylene bags, such as those used for duty-free or bar sales or, if none available, airsickness bags.

4. DON RUBBER GLOVES AND SMOKE HOOD

The hands should always be protected before touching suspicious packages or items. Fire-resistant gloves or oven gloves covered by polyethylene bags are likely to give suitable protection.

Gas-tight breathing equipment should always be worn when attending to an incident involving smoke, fumes or fire.

5. MOVE PASSENGERS AWAY FROM AREA

The use of therapeutic oxygen bottles or the passenger drop-out oxygen system to assist passengers in a smoke- or fume-filled passenger 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 possible, provide wet towels or cloths and give instructions to breathe through them.

6. PLACE DANGEROUS GOODS ITEM IN POLYETHYLENE BAGS

Note.— In the case of a spill of known or suspected dangerous goods in powder form:

— leave everything undisturbed;
— do not use fire agent or water;
— cover area with polyethylene or other plastic bags and blankets;
— keep area isolated until after landing.

With emergency response kit

If it is absolutely certain that the item will not create a problem the decision may be made not to move it. In most circumstances, however, it will be better to move the item and this should be done as suggested below. Place the item in a polyethylene bag as follows:

— prepare two bags by rolling up the sides and placing them on the floor;

— place the item inside the first bag with the closure of the item, or the point from which it is leaking from its container, at the top;

— take off the rubber gloves while avoiding skin contact with any contamination on them;

— place the rubber gloves in the second bag;

— close the first bag while squeezing out the excess air;

— twist the open end of the first bag and use a bag tie to tie it sufficiently tight to be secure but not so tight that pressure equalization cannot take place;

— place the first bag (containing the item) in the second bag, which already contains the rubber gloves and secure the open end in the same manner as that used for the first bag.

With no emergency response kit

Pick up the item and place it in a polyethylene bag. Ensure the receptacle containing the dangerous goods is kept upright or the area of leakage is at the top. Using paper towels, newspaper, etc., mop up the spillage, after having ascertained there will be no reaction between what is to be used to mop up and the dangerous goods. Place the soiled towels, etc., in another polyethylene bag. Place the gloves and bags used to protect the hands either in a separate small polyethylene bag or with the soiled towels. If extra bags are not available, place the towels, gloves, etc., in the same bag as the item. Expel excess air from the bags and close tightly so as to be secure but not so tight that pressure equalization cannot take place.

7. STOW POLYETHYLENE BAGS

If there is a catering or bar box on board, empty any contents and place the box on the floor, with the door upward. Place the bag(s) containing the item and any soiled towels, etc., in the box and close the door. Take the box or, if there is no box, the bag(s) to a position as far away as possible from the flight deck

and passengers. If a galley or toilet is fitted, consider taking the box or bag(s) there, unless it is close to the flight deck. Use a rear galley or toilet wherever possible, but do not place the box or bag(s) against the pressure bulkhead or fuselage wall. If a galley is used, the box or bag(s) can be stowed in an empty waste bin container. If a toilet is used, the box can be placed on the floor or the bag(s) stowed in an empty waste container. The toilet door should be locked from the outside. In a pressurized aircraft, if a toilet is used, any fumes will be vented away from passengers. However, if the aircraft is unpressurized there may not be positive pressure in a toilet to prevent fumes from entering the passenger cabin.

Ensure when moving a box that the opening is kept upward or when moving a bag that either receptacle containing the dangerous goods is kept upright or the area of leakage is kept at the top.

Wherever the box or bag(s) have been located, wedge them firmly in place to prevent them from moving and to keep the item upright. Ensure that the position of the box or bags will not impede disembarkation from the aircraft.

8. TREAT AFFECTED SEAT CUSHIONS / COVERS IN THE SAME MANNER AS DANGEROUS GOODS ITEM

Seat cushions, seat backs or other furnishings which have been contaminated by a spillage should be removed from their fixtures and placed in a large bin bag or other polyethylene bag, together with any bags used initially to cover them. They should be stowed away in the same manner as the dangerous goods item causing the incident.

9. COVER SPILLAGE ON CARPET / FLOOR

Cover any spillage on the carpet or furnishings with a waste bag or other polyethylene bags, if available. If not, use airsickness bags opened out so that the plastic side covers the spillage or use the plastic covered emergency information cards.

Carpet which has been contaminated by a spillage and which is still causing fumes despite being covered, should be rolled up, if possible, and placed in a large bin bag or other polyethylene bag. It should be placed in a waste bin and stowed, when possible, either in the rear toilet or rear galley. If the carpet cannot be removed it should remain covered by a large bin bag or polyethylene bags, etc., and additional bags should be used to reduce the fumes.

10. REGULARLY INSPECT ITEMS STOWED AWAY / CONTAMINATED FURNISHINGS

Any dangerous goods, contaminated furnishings or equipment which have been removed and stowed away or covered for safety should be subject to regular inspection.

11. 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.

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APPENDIX B

ICAO CABIN SAFETY GROUP (ICSG) MEMBERSHIP

International Civil Aviation Organization

ICAO Cabin Safety Group

ICAO Cabin Safety Group (ICSG) Membership

Organization	Representative
Air Canada Rouge	Annette Anand
Airbus	Valérie Renauldon-Dumain
Alitalia – Compagnia Aerea Italiana	Capt. Mauro Mari
All Nippon Airways	Fumi Oyanagi Masayo Nakao
ANAC – National Civil Aviation Agency of Brazil	Raymundo Nonato de Freitas Jr.
Avianca	Daniel Bechara Navratilova
Boeing Company	Brad Becker Sherry Saehlenou
Bombardier Aerospace	Julie Palmer
Central American Agency for Aviation Safety	Catalina Murillo
Civil Aviation Authority of Singapore	Allan Tang
Civil Aviation Safety Authority	Lisa Anseline
Condor Flugdienst	Capt. Stephan Bergold Capt. Dietrich Langhof
Embraer - Empresa Brasileira de Aeronáutica	Marcio Ferraz Gobato
European Aviation Safety Agency	Dagmar Dostalikova
Federal Air Transport Agency (Rosaviatsia)	Vladimir G. Bolotov
Federal Aviation Administration	Sherry Miller
Flight Attendant School	Mikhail Novokhatskiy
GOL Linhas Aéreas Inteligentes	Ronaldo Franzini
International Air Transport Association	Suzanne Acton-Gervais
International Civil Aviation Organization	Martin Maurino (Secretary)
International Transport Workers' Federation	Candace Kolander Melissa Madden
Jamaica Civil Aviation Authority	Jacqueline Rutter
Japan Airlines	Toru Matsushita Yuji Nagase
Jetstar Airways	Joseph Pinto
National Transportation Safety Board[1]	Emily Gibson
Provincial Airlines	Sandy Sheppard
Saudi Arabian Airlines	Yaser H. Farhood Nizar Malayeb
Singapore Airlines	Joseph Kwok
South Africa Civil Aviation Authority	Rowlene Jantjes Kgomotso Moche
Transport Canada Civil Aviation	Christopher Dann
UAE General Civil Aviation Authority	Mohammed Ahmed Abbas Younis
United Airlines	Maria Teresa Cook Michielle Sego-Johnson

[1] Advisor to ICSG