



DANGEROUS GOODS PANEL (DGP)

TWENTY-FOURTH MEETING

Montréal, 28 October to 8 November 2013

Agenda Item 4 : Development of recommendations for amendments to the *Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods* (Doc 9481) for incorporation in the 2015-2016 Edition

UPDATE TO PROCEDURES FOR CABIN CREW TO ADDRESS CABIN INCIDENTS INVOLVING LITHIUM BATTERIES

(Presented by D. Brennan)

ADDENDUM/CORRIGENDUM No. 2

SUMMARY

This working paper proposes the adoption of some recommendations for cabin crew on the actions to be taken during and following an incident involving lithium batteries in the passenger cabin.

Action by the DGP: The DGP is invited to consider the proposed amendment to the cabin crew provisions in the *Emergency Response Guidance* (Doc 9481) as shown in the appendix to this working paper.

1. INTRODUCTION

1.1 Following discussion of working paper DGP/24-WP/38 in plenary there have been discussions with a small group of interested persons on the proposed changes. Based on those discussions and comments the original proposals have been revised accordingly.

2. ACTION BY THE DGP

2.1 The DGP is invited to consider the proposed amendment to the cabin crew provisions in the *Emergency Response Guidance* (Doc 9481) as shown in the appendix to this working paper.

APPENDIX

“CLEAN” VERSION EMERGENCY RESPONSE GUIDANCE FOR AIRCRAFT INCIDENTS INVOLVING DANGEROUS GOODS

Section 3

EXAMPLES OF DANGEROUS GOODS INCIDENTS CHECKLISTS

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

FIRES INVOLVING BATTERIES / PORTABLE ELECTRONIC DEVICE (PED)

IMMEDIATE ACTION

- Notify pilot-in-command
- Identify the item
- Apply appropriate fire-fighting procedure / obtain and use fire extinguisher / [consider use of personal protective equipment (PPE) as applicable to the situation]
- Disconnect from power supply, if applicable
- Douse device with water (or other non-flammable liquid) to cool cells and prevent ignition of adjacent cells
Note: liquid may turn to steam when applied to the hot battery
- Move passengers away from the area
- Turn off in-seat power, if applicable,
- Monitor for any re-ignition. If smoke re-appears, continue using water (or other non-flammable liquid).
- Verify that power to 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

Warning:

- Do not attempt to remove battery from device
- Do not touch, pick up or attempt to move a device that is burning or emitting smoke or an electrical smell. Batteries can explode or burst into flames without warning
- Do not cover or enclose the device as it could cause it to overheat. Do not use ice or dry ice to cool the device

In case of fire / smoke in overhead bin

- Fire in an overhead bin and the device is visible and accessible: apply the above procedures
- Device is contained in baggage and flames are visible: apply above procedures
- No flames visible: remove bag from overhead bin. Apply appropriate fire-fighting procedures, then douse with water (or other non-flammable liquid), if available place in suitable container and continue to douse with water

Warning:

Do not open bag when there is any indication of smoke or flame.

WHEN DEVICE HAS COOLED

- Monitor device for 10-15 minute period, after which time the device (or baggage containing device) may be moved, using available PPE, **only if** there is no evidence of smoke or heat
- Place the device (or baggage) in a suitable container and completely immerse the device in water (or other non-flammable liquid)
- Secure selected container to prevent spillage
- Monitor the device and the surrounding area for the remainder of the flight

Overheat or electrical smell involving a PED:

- Instruct passenger or crew member to turn off the device immediately
- Disconnect from power supply, if applicable
- Turn off in-seat power, if applicable,
- Verify that device remains off for the duration of the flight
- Keep device visible and monitor closely
Note: unstable batteries may ignite even after device is turned off

AFTER LANDING – POST INCIDENT OFFLOADING PROCEDURES

- Complete required documentation
- Identify to ground personnel PED and where stowed.
- Make appropriate entry in maintenance log

IN CASE OF FIRE INVOLVING DANGEROUS GOODS:**IMMEDIATE ACTION**

- Notify pilot-in-command
- Identify the item
- Apply the appropriate fire-fighting procedure / check use of water
- Move passengers away from the area
- Monitor for any re-ignition. If smoke re-appears, continue applying appropriate fire-fighting procedure

In case of fire / smoke in overhead bin

- If a fire occurs in an overhead bin and the fire is visible and accessible, apply the above procedure
- If the fire is from baggage and flames are visible, apply above procedure
- If there are no flames visible, remove bag from overhead bin. Apply appropriate fire-fighting procedures / check use of water

Warning:

Do not open bag when there is any indication of smoke or flame.

AFTER LANDING – POST INCIDENT OFFLOADING PROCEDURES

- Complete required documentation
- Identify to ground personnel dangerous goods item and where stowed.
- Make appropriate entry in maintenance log

IN CASE OF SPILLAGE OR LEAKAGE OF DANGEROUS GOODS:

IMMEDIATE ACTION

- Notify pilot-in-command
- Identify the item
- Collect emergency response kit or other useful items
- Don rubber gloves and smoke hood
- Move passengers away from area and distribute wet towels or cloths
- Place dangerous goods item in polyethylene bags
- Stow polyethylene bags
- Treat affected seat cushions / covers in the same manner as dangerous goods item
- Cover spillage on carpet / floor
- Regularly inspect items stowed away / contaminated furnishings

AFTER LANDING – POST INCIDENT OFFLOADING PROCEDURES

- Complete required documentation
- Identify to ground personnel dangerous goods item and where stowed.
- Make appropriate entry in maintenance log

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

IN CASE OF FIRE INVOLVING BATTERIES / PORTABLE ELECTRONIC DEVICE (PED)

IMMEDIATE ACTION

NOTIFY PILOT-IN-COMMAND

Any incident 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 be kept fully informed of the other's actions and intentions.

Important:

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.

IDENTIFY THE ITEM

Ask the passenger concerned to identify the item.

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.

APPLY APPROPRIATE FIRE-FIGHTING PROCEDURE / OBTAIN AND USE FIRE EXTINGUISHER / [CONSIDER USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)]

Appropriate fire-fighting and emergency procedures must be used to deal with any fire. [Although Halon has been shown to not be effective against lithium metal fires, Halon will be effective in fighting the subsequent fire of surrounding materials, or in fighting a lithium ion battery fire.]

DISCONNECT FROM POWER SUPPLY (IF APPLICABLE)

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 external power from the device, it will be assured that additional energy is not being fed to the battery to promote a fire.

DOUSE DEVICE WITH WATER (OR OTHER NON-FLAMMABLE LIQUID) TO COOL CELLS AND PREVENT IGNITION OF ADJACENT CELLS

It is essential that water (or other non-flammable liquid) is 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 cells and device. (Note: liquid may turn to steam when applied to the hot battery).

**MOVE PASSENGERS AWAY FROM THE
AREA**

Cabin crew should take prompt action if fire develops 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.

TURN OFF IN-SEAT POWER (IF APPLICABLE)

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.

**MONITOR FOR ANY RE-IGNITION. IF
SMOKE/FLAMES RE-APPEARS, CONTINUE USING
WATER (OR OTHER NON-FLAMMABLE LIQUID).**

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).

VERIFY THAT POWER TO REMAINING OUTLETS REMAINS OFF

Verify that power to 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.

WARNING:

Do not attempt to remove the battery from the device;

Do not handle device; batteries may explode or burst into flames without warning;

Do not insulate the device as this may aggravate the build-up of heat;

Do not cover the device;

Do not use ice or dry ice to cool the device.

Do not pick up or attempt to move a burning device or a device that is emitting smoke. 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 device.

IN CASE OF FIRE / SMOKE IN AN OVERHEAD BIN

FIRE IN AN OVERHEAD BIN AND THE DEVICE IS VISIBLE AND ACCESSIBLE

**APPLY APPROPRIATE FIRE-FIGHTING PROCEDURE / OBTAIN AND USE FIRE EXTINGUISHER /
[CONSIDER USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)]**

Appropriate fire-fighting and emergency procedures must be used to deal with any fire. [Although Halon has been shown to not be effective against lithium metal fires, Halon will be effective in fighting the subsequent fire of surrounding materials, or in fighting a lithium ion battery fire.]

**DOUSE DEVICE WITH WATER (OR OTHER NON-FLAMMABLE LIQUID)
TO COOL CELLS AND PREVENT IGNITION OF ADJACENT CELLS**

It is essential that water (or other non-flammable liquid) is 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 cells and device. *(Note: liquid may turn to steam when applied to the hot battery).*

**MOVE PASSENGERS AWAY FROM THE
AREA**

Cabin crew should take prompt action if fire develops 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.

**MONITOR FOR ANY RE-IGNITION. IF
SMOKE/FLAMES RE-APPEARS, CONTINUE USING
WATER (OR OTHER NON-FLAMMABLE LIQUID).**

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).

DEVICE IS CONTAINED IN BAGGAGE AND FLAMES ARE VISIBLE

**APPLY APPROPRIATE FIRE-FIGHTING PROCEDURE / OBTAIN AND USE FIRE EXTINGUISHER /
[CONSIDER USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)]**

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WATER (OR OTHER NON-FLAMMABLE LIQUID).**

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).

SMOKE IS COMING FROM AN OVERHEAD BIN

IF SAFE TO DO SO REMOVE BAG FROM OVERHEAD BIN.

If there is no indication of fire remove the bag from the overhead bin.

Warning:

Do not open bag when there is any indication of smoke or flame.

**APPLY APPROPRIATE FIRE-FIGHTING PROCEDURE / OBTAIN AND USE FIRE EXTINGUISHER /
[CONSIDER USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)]**

Appropriate fire-fighting and emergency procedures must be used to deal with any fire. [Although Halon has been shown to not be effective against lithium metal fires, Halon will be effective in fighting the subsequent fire of surrounding materials, or in fighting a lithium ion battery fire.]

**DOUSE BAG WITH WATER (OR OTHER NON-FLAMMABLE LIQUID)
TO COOL CELLS AND PREVENT IGNITION OF ADJACENT CELLS**

if available place bag in a suitable container such as a galley unit or toilet waste bin and continue to douse with water. Not all containers are water-tight, therefore plastic bin liners should be used if available.

ACTIONS TO BE TAKEN WHEN DEVICE HAS COOLED

MOVE THE DEVICE

If, after a 10-15 minute monitoring period, there is no evidence of smoke or heat, the device can be moved, with caution. It is important to wear available PPE, e.g. PBE, fire gloves, when moving any portable electronic device involved in a fire event.

**COMPLETELY IMMERSE THE DEVICE IN
WATER**

Submerge the device / baggage in the most appropriate container such as a pot, jug, galley unit or toilet waste bin. Fill with enough water or non-flammable liquid to completely immerse the device. Once it is immersed it is deemed safe. Not all containers are water-tight, therefore plastic bin liners should be used if available.

**SECURE CONTAINER TO PREVENT
SPILLAGE**

Any container used to contain an affected device must be secured to prevent spillage.

**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 ensure that the device does not pose further risk.

OVERHEAT OR AN ELECTRICAL SMELL INVOLVING A PED

**INSTRUCT PASSENGER OR CREW
MEMBER TO TURN OFF THE DEVICE
IMMEDIATELY; DISCONNECT POWER
SUPPLY FROM DEVICE (IF APPLICABLE);
TURN OFF IN-SEAT POWER, IF
APPLICABLE**

It is important to instruct the passenger or crew member to turn off the device immediately and if possible to disconnect the power supply. A battery has a higher likelihood of catching fire due to overheating during or immediately following a charging cycle. By removing external power from the device, it will be assured that additional energy is not being fed to the battery to promote a fire.

**DEVICE MUST REMAIN OFF FOR THE
DURATION OF THE FLIGHT. KEEP DEVICE
VISIBLE AND MONITOR CLOSELY;
UNSTABLE BATTERIES MAY IGNITE EVEN
AFTER DEVICE IS TURNED OFF**

It is important not to remove the battery from the device and ensure that the device remains powered off for the duration of the flight and that the device remains visible (not stowed such as in a bag or seat pocket or on a person (pocket)) and to monitor it closely. Unstable batteries may ignite even after device is turned off. Ensure device is stowed for landing

AFTER LANDING – POST INCIDENT OFFLOADING PROCEDURES

**IDENTIFY TO GROUND PERSONNEL
DANGEROUS GOODS ITEM AND WHERE
STOWED**

Upon arrival, take the necessary steps to identify to ground staff where the item is stowed. Pass on all information about the item. Provide any PED involved in a fire or smoke event to ground personnel as per operator procedures

COMPLETE REQUIRED DOCUMENTATION

Complete any required document such as company incident report.

MAKE APPROPRIATE ENTRY IN MAINTENANCE LOG

If required, make an entry in the aircraft maintenance log so that proper maintenance action is undertaken and that the emergency response kit or any aircraft equipment used is replenished or replaced when appropriate.

IN CASE OF FIRE INVOLVING DANGEROUS GOODS:

IMMEDIATE ACTION

NOTIFY PILOT-IN-COMMAND

Any incident 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 be kept fully informed of the other's actions and intentions.

Important:

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.

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.

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.

APPLY THE APPROPRIATE FIRE-FIGHTING_PROCEDURE / CHECK USE OF WATER

The appropriate emergency procedures must be applied to deal with any fire. 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.

**MOVE PASSENGERS AWAY FROM THE
AREA**

Cabin crew should take prompt action if fire develops 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.

**MONITOR FOR ANY RE-IGNITION. IF
SMOKE/FLAMES RE-APPEARS, CONTINUE
APPLYING APPROPRIATE FIRE-FIGHTING
PROCEDURE**

Monitored 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 appropriate fire-fighting procedure.

IN CASE OF FIRE / SMOKE IN AN OVERHEAD BIN

FIRE IN AN OVERHEAD BIN AND THE DEVICE IS VISIBLE AND ACCESSIBLE

**APPLY APPROPRIATE FIRE-FIGHTING PROCEDURE / OBTAIN AND USE FIRE EXTINGUISHER /
[CONSIDER USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)]**

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TO COOL CELLS AND PREVENT IGNITION OF ADJACENT CELLS**

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WATER (OR OTHER NON-FLAMMABLE LIQUID).**

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).

DEVICE IS CONTAINED IN BAGGAGE AND FLAMES ARE VISIBLE

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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).

SMOKE IS COMING FROM AN OVERHEAD BIN

IF SAFE TO DO SO REMOVE BAG FROM OVERHEAD BIN.

If there is no indication of fire remove the bag from the overhead bin.

Warning:

Do not open bag when there is any indication of smoke or flame.

**APPLY APPROPRIATE FIRE-FIGHTING PROCEDURE / OBTAIN AND USE FIRE EXTINGUISHER /
[CONSIDER USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)]**

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**DOUSE BAG WITH WATER (OR OTHER NON-FLAMMABLE LIQUID)
TO COOL CELLS AND PREVENT IGNITION OF ADJACENT CELLS**

if available place bag in a suitable container such as a galley unit or toilet waste bin and continue to douse with water. Not all containers are water-tight, therefore plastic bin liners should be used if available.

AFTER LANDING – POST INCIDENT OFFLOADING PROCEDURES

**IDENTIFY TO GROUND PERSONNEL
DANGEROUS GOODS ITEM AND WHERE
STOWED**

Upon arrival, take the necessary steps to identify to ground staff where the item is stowed.

COMPLETE REQUIRED DOCUMENTATION

Complete any required document such as company incident report.

MAKE APPROPRIATE ENTRY IN MAINTENANCE LOG

If required, make an entry in the aircraft maintenance log so that proper maintenance action is undertaken and that the emergency response kit or any aircraft equipment used is replenished or replaced when appropriate.

IN CASE OF SPILLAGE OR LEAKAGE INVOLVING DANGEROUS GOODS

IMMEDIATE ACTION

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 be kept fully informed of the other's actions and intentions.

Important:

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.

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.

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.

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.

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 necessary, provide wet towels or cloths and give instructions to breathe through them.

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.

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.

**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.

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.

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.

AFTER LANDING – POST INCIDENT OFFLOADING PROCEDURES**IDENTIFY TO GROUND PERSONNEL
DANGEROUS GOODS ITEM AND WHERE
STOWED**

Upon arrival, take the necessary steps to identify to ground staff where the item is stowed. Pass on all information about the item.

COMPLETE REQUIRED DOCUMENTATION

Complete any required document such as company incident report.

MAKE APPROPRIATE ENTRY IN MAINTENANCE LOG

If required, make an entry in the aircraft maintenance log so that proper maintenance action is undertaken and that the emergency response kit or any aircraft equipment used is replenished or replaced when appropriate.