



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/17)**

Montreal, 24 to 28 April 2017

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2019-2020 Edition

2.3: Part 3 — Dangerous Goods List, Special Provisions and Limited and Excepted Quantities

**DEFECTIVE LITHIUM BATTERIES – IMPROVING
THE INTEGRITY OF AVIATION SAFETY**

(Presented by B. Firkins)

SUMMARY

This paper has arisen through a collaborative review, by the Civil Aviation Safety Authority of Australia (CASA) and the Australian Dangerous Goods Air Transport Council, of recent lithium battery recalls and the lessons that can be learned and applied in the future.

It proposes several amendments to Special Provision A154 to include devices that contain lithium batteries; and to cater for another regulatory authority having determined that the device or battery is of a type that is defective or having the potential to produce a dangerous evolution of heat, fire or short circuit.

The paper also proposes the addition of a note to provide guidance to manufacturers on managing the recall to ensure continued safe aviation operations and on reporting such recalls to the relevant national authority responsible for compliance with Annex 18.

Action by the DGP-WG: The DGP is invited to comment upon the suggested amendments to Special Provision A154 and the addition of a note; shown in the appendix to this working paper.

1. INTRODUCTION

1.1 There have been a number of recalls of lithium batteries; where the manufacturer or supplier has identified a safety risk. Traditional experience was with laptops which had a removable battery and the recall process was just to remove and return the battery. With the growth in portable electronic devices (PEDs) with non-removable batteries; it has been suggested that Special Provision A154 should be expanded to include the device.

1.2 Many suppliers voluntarily initiate their own recalls after becoming aware that one or more of their products presents a safety risk. The process usually involves

- a) stopping the supply of a product;
- b) informing the relevant authorities of the problem;
- c) warning consumers of the hazard the product presents; and
- d) offering consumers a remedy in the form of a repair, replacement or refund.

1.3 However, there is the occasional example where a State government agency responsible for consumer safety has issued safety notices especially with the manufacturer or supplier no longer operating; or are located off-shore, or outside of that State's jurisdiction; or are refusing to engage in attempts to secure compliance with safety standards. It is therefore proposed to expand Special Provision A154 to include within the prohibition, those devices or batteries which have been identified by a State government or agency as being dangerous.

1.4 The industry appears to have settled into a structured process whereby the recall is announced and advertised, replacements are offered and shipped out to customers along with packaging materials for the return of the defective items by means of surface transport. However the information to consumers is often scant with regard to the batteries effectively now being forbidden for transport by air.

1.5 The experience is also one of where the regulatory authorities for aviation and dangerous goods are not approached in a proactive manner and will often struggle to find an appropriate and authoritative point of contact within the supplier/manufacturer.

1.6 The reason for a minimalist approach by manufacturers and suppliers is thought to include:

- a) reputational and adverse publicity risk;
- b) replicating their last recall experience or copying that of another company which has effected a recent recall; and
- c) an absence of guidance from aviation regulatory authorities.

1.7 It is proposed to give some structured guidance to manufacturers and suppliers on a recommended process for managing the recall in a way that maintains the integrity of aviation safety. Whilst there may be scope to mandate the notification to passengers and consignors of the effect of the recall and prohibition, it is preferred that voluntary improvement be sought first.

1.8 It is also considered that recommending that manufacturers and suppliers that execute a recall where there is a safety concern; ought to notify their State national aviation authority. There are varying approaches between regulatory authorities with some being more proactive than others. Therefore it is recommended that ICAO's Cargo Safety Section (CSS) also be notified. The expectation is that CSS will only be involved to the extent of ensuring that there is communication and progress between affected regulators and between the supplier/manufacturer and their regulator towards ensuring the ongoing maintenance of aviation safety. CSS would only be expected to escalate matters where there is a concern that the State national aviation authority is unwilling or unable to take action.

2. ACTION BY THE DGP-WG

2.1 The DGP is invited to comment upon and consider the text shown in the proposed amendment to Special Provision A154 in the appendix to this working paper.

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APPENDIX

PROPOSED AMENDMENT TO PART 3 OF THE TECHNICAL INSTRUCTIONS

Part 3

DANGEROUS GOODS LIST,
SPECIAL PROVISIONS AND
LIMITED AND EXCEPTED QUANTITIES

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Chapter 3

SPECIAL PROVISIONS

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Table 3-2. Special provisions

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A154

Lithium batteries or devices containing lithium batteries, identified by the manufacturer or State agency responsible for consumer safety as being defective for safety reasons, or that have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport (e.g. those being returned to the manufacturer for safety reasons).

Note.— It is recommended that any notice of recall, replacement or prohibition includes information that clearly:

a) identifies the relevant items as either:

1) batteries;

2) devices containing batteries which cannot be removed by the user; or

3) devices containing batteries but that are still contained in the device;

b) advises of the circumstances that have led to the recall and the likely scenarios of when there is increased risk to users;

c) recommends immediate steps to be undertaken by users;

d) states that the items are forbidden for transport on aircraft, including as cargo, air freight, air mail, in passenger baggage or carried on the passenger;

e) articulates that the recall/replacement process includes:

1) identification (does the user have a device or battery of the type that is subject to recall or replacement);

2) verification (does the user have a device or battery that falls within the suspected batch of defective devices or batteries);

3) provision of a replacement where replacements are transported by air (replacements must be compliant with the relevant packing instruction. It is likely that surface transport will be a more cost-efficient mode);

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4) return or disposal — the manufacturer should provide packaging for recalled devices and batteries to be returned by surface transport to a collection point or provide appropriate instructions for proper and safe disposal;

f) provides several means for users to check whether their battery is subject to the recall or replacement notice

It is recommended that manufacturers of devices and/or batteries, or the relevant State agency for consumer safety, provide the following advice to both their appropriate national authority and to ICAO's Cargo Safety Section:

a) a copy of the relevant notice;

b) an estimate of the number of items which are the subject of the recall or replacement programme;

c) a list of States where it is known that recalled items are in circulation and an estimate of the number of items in that State;

d) a list of States where it is reasonably expected that items will be in circulation and an estimate of the number of items in that State;

e) an appropriate and named point of contact within the company and means of communication with that individual.

The named point of contact may be on a regional basis and should be a person with sufficient seniority and authority within the company to work collaboratively with the national aviation authorities to ensure the continuing integrity of aviation safety.

A listing of contact points for the appropriate national authority for dangerous goods in aviation can be found at <http://www.icao.int/safety/DangerousGoods/Pages/Dangerous-Goods-National-Authority.aspx>.

ICAO's Cargo Safety Section can be contacted via email at CSS@icao.int, via facsimile at +1 514-954-6077 or via post to the following address:

Chief, Cargo Safety Section
International Civil Aviation Organization
999 Robert-Bourassa Boulevard
Montréal, Quebec
CANADA H3C 5H7

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