



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
MEETING OF THE WORKING GROUP OF THE WHOLE**

Auckland, New Zealand, 4 to 8 May 2009

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 2011/2012 Edition

2.8: Part 8 — Provisions Concerning Passengers and Crew

BATTERY POWERED MOBILITY AIDS

(Presented by G.A. Leach)

SUMMARY

This working paper seeks to further clarify the requirements for battery powered wheelchairs/mobility aids.

Action by the DGP-WG is in paragraphs 2 and 4.

1. INTRODUCTION

1.1 At WG/08, DGP-WG/08-WP/49 drew the attention of the working group to a serious incident involving a battery powered wheelchair which had occurred in the United Kingdom. The issue surrounding disconnection of batteries was discussed and it was pointed out that attempted disconnection can in some circumstances lead to a potentially dangerous situation; the most important aspect was the protection of the mobility aid against inadvertent operation and the following change to Part 8;.1.2 e) of the Technical Instructions was provisionally agreed (and placed in square brackets):

- e) with the approval of the operator(s), wheelchairs or other battery-powered mobility aids with non-spillable batteries (see Packing Instruction 806 and Special Provision A67), as checked baggage provided the battery terminals are protected from short circuits [e.g. by being enclosed within a battery container] and the battery is securely attached to the wheelchair or mobility aid. [The operator(s) must ensure that wheelchairs or other battery powered mobility aids are carried in such a manner so as to prevent unintentional activation and that they are protected from being damaged by the movement of baggage, mail, stores or other cargo];

1.2 DGP-WG/08-WP/49 raised other questions including why spillable batteries needed to be disconnected whilst non-spillable batteries did not. No reasons have been determined why this is so and it is suggested the requirements for spillable and non-spillable battery powered mobility aids should align.

1.3 As stated in DGP-WG/08-WP/49, Part 8;1.1.2 e) of the Technical Instructions, in respect of non-spillable batteries, states “see Packing Instruction 806 and Special Provision A67”. Packing Instruction 806 (soon to be 872) contains requirements not applicable to the carriage of dangerous goods by passengers and it is suggested a slight change to Part 8;1.1.2 e) would help to clarify the situation.

1.4 DGP-WG/08-WP/49 also highlighted an anomaly in respect of Special provision A67, which states that providing the special provision is complied with batteries are not subject to any other part of the Technical Instructions. But such batteries need to be subject to Part 8;1.1.2 e) as this contains requirements for the battery to be securely attached to the wheelchair/mobility, for it to be carried in checked baggage and for the approval of the operator to be obtained. It is suggested a slight change to Special provision A67 would address this.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to:

a) amend Part 8;1.1.2 e) as follows:

e) with the approval of the operator(s), wheelchairs or other battery-powered mobility aids with non-spillable batteries ~~(see Packing Instruction 806 and Special Provision A67)~~, which comply with Special Provision A67 or the vibration and pressure differential tests of Packing Instruction 872, as checked baggage provided the battery terminals are protected from short circuits [(e.g. by being enclosed within a battery container)] and the battery is securely attached to the wheelchair or mobility aid. [The operator(s) must ensure that wheelchairs or other battery powered mobility aids are carried in such a manner so as to prevent unintentional activation and that they are protected from being damaged by the movement of baggage, mail, stores or other cargo];

b) amend Part 8;1.1.2 f) as follows:

f) with the approval of the operator(s), wheelchairs or other battery-powered mobility aids with spillable batteries as checked baggage, provided that the wheelchair or mobility aid can be loaded, stowed, secured and unloaded always in an upright position and that ~~the battery is disconnected~~, the battery terminals are protected from short circuits (e.g. by being enclosed within a battery container) and the battery is securely attached to the wheelchair or mobility aid. The operator(s) must ensure that wheelchairs or other battery powered mobility aids are carried in such a manner so as to prevent unintentional activation and that they are protected from being damaged by the movement of baggage, mail, stores or other cargo. If the wheelchair or mobility aid cannot be loaded, stowed, secured and unloaded always in an upright position, the battery must be removed and the wheelchair or mobility aid may then be carried as checked baggage without restriction. The removed battery must be carried in strong, rigid packagings as follows:

...

c) amend Special provision A67 as follows:

A67 Non-spillable batteries meeting the requirements of Packing Instruction ~~806~~ 872 are not subject to these Instructions except for Part 8;1.1.2 e) if, at a temperature of 55°C, the electrolyte will not flow from a ruptured or cracked case. The battery must not contain any free or unabsorbed liquid. Any electrical battery or battery powered device, equipment or vehicle having the potential of dangerous evolution of heat must be prepared for transport so as to prevent:

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3. **OUTSTANDING ISSUES**

3.1 DGP-WG/08-WP/49 raised two other issues which need to be discussed by the working group before a proposal can be made:

- a) What is a “mobility aid”? It could be argued that a battery powered golf trolley assists mobility, even if it is owned by someone fit and healthy. Should the Technical Instructions provide for passengers who need such devices because of their reduced mobility, or given the possible difficulties for operators in applying such a requirement should any passenger be able to travel with a mobility aid?
- b) What provisions should be developed for lithium battery powered mobility aids, particularly the lithium content of such batteries?

4. **ACTION BY THE DGP-WG**

4.1 The working group is invited to discuss the issues above to assist in producing a further proposal for DGP/22.

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