



## **DANGEROUS GOODS PANEL (DGP)**

### **TWENTY-THIRD MEETING**

**Montréal, 11 to 21 October 2011**

**Agenda Item 5: Resolution, where possible, of the non-recurrent work items identified by the Air Navigation Commission or the panel:**

**5.1: Review of provisions for the transport of lithium batteries**

### **LITHIUM BATTERIES**

(Presented by the Secretary)

#### **SUMMARY**

This working paper provides comments on lithium batteries by the Air Navigation Commission (ANC) during its review of DGP/22 report.

**Action by the DGP:** The DGP is invited to inform the panel of any initiatives in relation to outreach and guidance undertaken in their States or organisations.

## **1. LITHIUM BATTERIES**

1.1 Prior to the review by the Air Navigation Commission (ANC) of the report of DGP/22, an ANC ad hoc working group paid particular attention to the subject of lithium batteries. An extract from the report of the working group is presented below (AN-WP/8446 DP No.1).

“2.5.2 The AH WG considered that:

- a) the packaging and transport of lithium batteries is an extremely complicated subject that is technically challenging;
- b) aviation-related battery incidents involving smoke, fire, extreme heat or explosion demonstrate the technical seriousness of lithium batteries;
- c) hard research data is essential for a complete understanding of the risk, as incidents themselves cannot be considered conclusive;
- d) additional empirical data is required to address all the variants involved with the packaging and shipping of lithium batteries;

- e) the complexity of the Technical Instructions makes it difficult for all to comprehend and fully comply with such critical packaging and transport instructions;
- f) the market for lithium batteries is large and expanding as is the need for their transport; and
- g) the recent United States' notice of proposed rulemaking (NPRM) suggests that several aspects of the issue remain unsettled with potential adverse consequences for international shipments.

2.5.3 Based on these conclusions, the AH WG recommends that the Dangerous Goods Panel convene an ad hoc working group meeting as soon as possible to:

- a) review the current requirements for lithium batteries and place an emphasis on simplifying and clarifying them to ensure comprehension that would result in greater compliance;
- b) review the current United States' NPRM for the transport of lithium batteries against the provisions of the Technical Instructions;
- c) place the highest priority on the provisions for bulk shipments of lithium batteries;
- d) consider new possible tests which could be performed on batteries, packaging and shipment types and report to the ANC on the desirability, practicality and availability of such tests; and
- e) consider and recommend, if necessary, what provisions should be further addressed by the United Nations.”

2.5.4 Additionally, the AH-WG agrees with the Dangerous Goods Panel's proposal that ICAO issue a State Letter highlighting the need for outreach and providing guidance on the safe handling of lithium batteries.

1.2 The ANC, in its review (AN Min 183-6) of the working group, discussed the issue again. There was general agreement that the provisions for bulk shipments of lithium batteries was central to the subject and that the highest priority should be given to them. It was recognized since the issue of exceptions regarding the transport of lithium batteries originated from the United Nations, this was a multi-modal issue and would be best addressed there but that the DGP should review the exceptions from an aviation mode perspective. It was also suggested it would be useful to consider what other tests might be necessary to ensure safety in transport of lithium batteries. Noting the DGP proposal for a State letter highlighting the need for outreach and providing guidance on the safe handling of lithium batteries, it was emphasized that any efforts or resources invested were meaningless without improved training for the staff of States, operators and shippers on the basis that part of the problem was that the provisions for lithium batteries were very complicated.

1.3 DGP members are invited to note the information provided, particularly the comments regarding bulk shipments and to inform the meeting of any initiatives in relation to outreach and guidance that have been undertaken in their States or organizations.