International Civil Aviation Organization
**WORKING PAPER**

DGP-WG/05-WP/29
21/3/05

**DANGEROUS GOODS PANEL (DGP)**

**MEETING OF THE WORKING GROUP OF THE WHOLE**

**Montreal, 18 to 22 April 2005**

**Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions* for incorporation in the 2007/2008 edition**
**2.1: Part 1 — General**
**2.3: Part 3 — Dangerous Goods List and Limited Quantities Exceptions**

# CHEMICAL OXYGEN GENERATORS IN PROTECTIVE BREATHING EQUIPMENT

(Presented by G A Leach)

## 1. BACKGROUND

1.1 The 2005-2006 edition of the Technical Instructions provides an alleviation for the carriage by air of Protective Breathing Equipment containing chemical oxygen generators on passenger aircraft when consigned by or on behalf of an operator. Whilst the new provisions have been beneficial to operators, an issue has arisen which is not addressed by the new provisions.

1.2 It is understood that aircraft typically have approved stowages in the cabin for more PBE than the number of required cabin crew. For example, a B757 may have 7 PBE installed in such stowages but the aircraft obtained certification based on only 5 cabin crew being required. Similarly, an operator may decide that for operational reasons they want to carry more crew members than the legally required minimum. Consequently, in both examples, PBE in excess of the minimum are not “required to be aboard the aircraft “etc as per Part 1; 2.2.1a) of the Technical Instructions. It is suggested that it should not be the intention of 1;2.2.1a) to remove these "extra" PBE and the Technical Instructions could be clarified on this issue.

1.3 Furthermore, the Technical Instructions does not provide for inoperative PBE to be retained in their approved stowage; as with the scenario above, such items would also not be “required to be aboard the aircraft” and would technically need to be removed from the aircraft. However, if this argument is extended to, say, an aircraft which has had a decompression and deployed all it's oxygen masks, the TI would preclude that aircraft from leaving the airfield to which it had diverted until every passenger service unit had been removed from the aircraft because, again, they are “not required to be aboard the aircraft”. This issue has been discussed with Cabin Safety specialists in the United Kingdom, who advise that, if a PBE is noticed to be unserviceable at base it will be replaced immediately. However, if it becomes inoperative at an out station, it would be normal practice to return the unit (in it’s approved stowage) to home base for possible repair. It is suggested the Technical Instructions should provide not only for such PBE to be carried in this

fashion but any other item of dangerous goods which is required to be aboard the aircraft but becomes unserviceable during flight.

***Proposal 1***

*Amend* Part 1; 2.2.1 a) as follows:

"a) articles and substances……required to be aboard the aircraft in accordance with the pertinent airworthiness requirements and operating regulations, including those which may become unserviceable during flight and which remain in a location required by those requirements and regulations or that are authorized….."

***Proposal 2***

It is proposed to amend Special Provision A144 as follows:

A144 Protective breathing equipment……on passenger aircraft ~~in accordance with Packing Instruction 523~~ subject to the following conditions:

1. As cargo

. . .

e) the PBE must be packed in accordance with Packing Instruction 523;

2. In an approved stowage in the aircraft cabin

PBE which are in excess of the required minimum crew complement may be carried provided they remain in an approved stowage.

PBE which:

a) cannot be stowed in an approved stowage; or

b) are replacement items

are subject to paragraph 1. above.

***Proposal 3***

*Amend* Special Provision 111 as follows:

Oxygen generators … forbidden for air transport, unless otherwise provided for.

— END —