DANGEROUS GOODS PANEL (DGP)

MEETING OF THE WORKING GROUP OF THE WHOLE

Abu Dhabi, 4 to 8 October 2004

Agenda Item 5: Discussion of miscellaneous dangerous goods issues

DANGEROUS GOODS PACKED IN LIMITED QUANTITIES

(Presented by the Secretary)

1. INTRODUCTION

1.1 At DGP/19, the issue of limited quantities was discussed; an extract from the report is presented below:

> 2.2.3 **Report of UN meeting on Limited quantities**
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> 2.2.3.1 The meeting heard a report from the Chairman of the UNSCETDG on a meeting recently held to discuss limited quantities. Several transport modes had provisions for limited quantities of dangerous goods, including ICAO, whose provisions were generally the most restrictive. The UN Sub-Committee was now endeavouring to develop revised multi-modal provisions to which it was hoped all modes could subscribe. The recent meeting had been the second one on the topic and it was hoped that the UN Sub-Committee could finalise its recommendations at the end of 2004. Some progress had so far been made in revising the current provisions of Chapter 3.4 of the UN Recommendations but more work was still to be done.
>
> 2.2.3.2 It was agreed that ICAO and the DGP should take a constructive role in this process to ensure that the air mode's position was clearly stated. Time did not allow the DGP/19 meeting to study the report in depth. It was however evident that there were significant differences between the views of the air mode and the surface modes on this subject. Some other modes went so far as to question the need for limited quantity provisions whereas they were of great importance in the air mode. Moreover, there were also differences between the views of DGP members on the subject. It was agreed that there was a need for a review of the Technical Instructions provisions concerning limited quantities, but it was difficult to see how this could be done in time to present a unified air mode position to the UNSCETDG before its meeting in December 2004, at which time it would probably finalize its recommendations.
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> 2.2.3.3 It was therefore agreed that DGP members should study the report after DGP/19 and discuss it with other members as far as possible. They would also, whenever possible, make sure that their

national UNSCETDG members were made aware of the air mode's views on the matter. Members should also communicate their views to the Secretary in time for an air mode position to be put before the UNSCETDG meeting in July 2004.

1.2 In order to inform the UNSCOE of the panel views, members were polled on the issue and the results were submitted to the UNSCOE July 2004 meeting. (See Appendix A).

1.3 The UNSCOE, on the basis of a working paper submitted by Canada and France, (See Appendix B), discussed the issue. The report of the discussion is presented below.

Document: ST/SG/AC.10/C.3/2004/8 (IMO)
ST/SG/AC.10/C.3/2004/44 (Canada and France)
ST/SG/AC.10/C.3/2004/50 (Belgium)

Informal documents: INF.6 (ICAO)
INF.17 (Netherlands)
INF.37 (IATA)
INF.42 (UIC)
INF.44 (United States of America)
INF.75 (United Kingdom)
INF.80 (ICAO)
INF.83 (AISE, CSPA, FEA, FIATA, IECC)

Secretarial Note.— See DGP-WG/04-IP/2 for extracts of above papers

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56. Despite the various meetings of the informal working group on limited quantities (see the options proposed in document ST/SG/AC.10/C.3/2004/44), the number of new documents submitted and the verbal comments made showed that there was still no consensus on how to deal with dangerous goods packed in small quantities, whether at the regional level or within the various transport modes.

57. The question of whether the new categories of "dangerous goods in excepted quantities" and "consumer commodities" should be introduced was a matter of particular debate. Several experts would like more estimates of the need for three different categories (limited quantities, excepted quantities, consumer commodities) for products which were ultimately relatively similar, the justification of this need, and the real difference in conditions of carriage apart from marking, labelling and particulars in the transport document.

58. The Sub-Committee also pointed out that current provisions in the various regulations posed very major problems to consignors, carriers and forwarding agents, and that the various parties concerned with the drafting of national or international regulations should pool their efforts to find a compromise and settle the problem.

59. The Chairman considered that it would be difficult to settle the problem this year and that it would probably be advisable to continue the work in the forthcoming biennium. In order to establish the direction in which work should continue, it was decided to consult the international bodies concerned, namely the ICAO "Dangerous Goods Panel", the IMO DSC Sub-Committee and the RID/ADR/ADN Joint Meeting.

60. The Sub-Committee discussed the possibility of giving guidance through a list of questions to be submitted to these international bodies. Suggestions were made for general questions (for example regarding safety justification for the requirements contained in the various modal regulations) and for specific questions (for example regarding justification for, and usefulness of, specific requirements for excepted quantities and consumer commodities).

61. After lengthy discussions, the Chairman concluded that it would be difficult to adopt a list of questions for submission to the modal bodies. The organizations concerned should rather be invited to study the documents submitted to the Sub-Committee, notably ST/SG/AC.10/C.3/2004/44 by France and Canada which is based on the results obtained by the informal working group on limited quantities. The discussions could be pursued in the next biennium on the basis of the feedback provided by international modal organizations.

2. PROPOSAL

2.1 The working group is requested to review the concepts of limited quantities, excepted quantities and consumer commodities, taking the following into consideration:

a) the safety case for each;

b) the minimum information needed for safety reasons;

c) benefit obtained when full requirements are reduced; and

d) any difficulties encountered in multimodal environment.

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APPENDIX A

DANGEROUS GOODS PACKED IN LIMITED QUANTITIES

Results of a Poll of the Dangerous Goods Panel

Transmitted by the International Civil Aviation Organization (ICAO)

1. The ICAO Dangerous Goods Panel (DGP) was requested to consider the proposals to the Transport of Dangerous Goods Sub-Committee (TDG SC) concerning limited quantities and consumer commodities in light of the implications to the safe transport of dangerous goods by air. The DGP approached the UN TDG SC requesting that a UN number be allocated for "Consumer Commodity, UN 8000" but this request is yet to be fulfilled. The DGP requests that the TDG Sub-Committee adopt an entry for consumer commodities, UN 8000 for use in the air mode and for transport by other modes since there is a need to ensure transport to and from the airport.

2. The ICAO DGP was recently requested to respond to a series of questions regarding the requirements for limited quantities and consumer commodities in order to establish ICAO's position on a number of issues. The questions and responses are provided below. Where there was not complete agreement some of the specific comments received have also been indicated. The TDG SC is requested to take the views of the Panel into account in discussions and decisions concerning the requirements for limited quantities and consumer commodities.

ICAO DGP Position regarding the Canada/France Proposal Concerning Limited Quantities

Question # 1: Does the Panel favor maintaining a distinction between Consumer Commodities and Limited Quantities?

Answer: Yes

Question # 2: Does the Panel favor maintaining the requirement for a transport document (shipper's declaration) for shipments of Limited Quantities and Consumer Commodities?

Answer: Yes

Question # 3: Does the Panel wish to consider allowing the UN number/diamond marking as an alternative to requiring the Class labels on packages of limited quantities transported by air?

Answer: No

Question # 4: If it were adopted by the UN, would the panel consider allowing the UN 8000 diamond marking in lieu of the Class 9 hazard label currently required for consumer commodities? Although the answer to question 3 above is assumed to be "no", the Class 9 label is so generic that it may be feasible to allow the UN 8000 marking to substitute for the Class 9 label.

Answer: Maybe, more research required.

Individual Comments:

(IATA) 'The substitution of a diamond marking with UN 8000 in lieu of a Class 9 hazard label for consumer commodities may be considered. However, there is concern at the proliferation of "diamond markings". The recent diamond marking for UN 3373 is a case in point. Training for warehouse and ramp staff particularly will have to emphasize that packages with this mark are not dangerous goods in the normal scheme of events. Introducing a different diamond shaped hazard marking that is DG and has to be to treated differently will pose a challenge in training as there has been a long-held position that diamond shaped labels represent DG hazard labels.'

(U.K.) 'As I indicated at 1 above, the Class 9 label provides no information other than the presence of dangerous goods and the marking as proposed would be just as ineffective. Ideally, I believe a package of dangerous goods should be labelled as what they are eg flammable or toxic or whatever but in the absence of this I believe the Class 9 label is marginally better than the proposed marking. However, this might be one are where we could maybe give a little; if it meant excepted quantities were accepted by the other modes then I would probably accept the marking!'

(IFALPA) 'The Class 9 label gives better hazard communication than the diamond marking.'

(Canada) 'The initial philosophy of the UN Committee of Experts on the Transport of Dangerous Goods to make the tools used to communicate the hazard as easy to understand as possible was sound. Inventing a new label displaying one or more UN numbers does not do this. The hazard class label provides for the consistent application of the original philosophy and facilitates the training and ultimate handling (segregation) of these dangerous goods. The addition of the term 'Small Quantities' identifies these goods as being subject to special provisions.'

(USA) This is an issue that should be considered further in order to enhance harmonization.

(Japan) We need more time to consider.

Question # 5: If the UN designates a UN number for consumer commodities, does the Panel favor adoption by the UN of a distinct UN number for consumer commodities transported by air? For example, UN8000 could be assigned to Consumer Commodities acceptable for air transport and UN8001 for Consumer Commodities not acceptable for air but acceptable for other modes.

Answer: Majority indicate yes

Individual Comment:

(Australia) 'If there are to be differences, this seems logical. Personal preference would be to have a different shipping name as well as different UN number if there are to be differences, but not firm either way.'

(IATA) 'If the UN proposes different provisions for "consumer commodities" for surface modes then yes a different UN number for air-mode consumer commodities should be considered. However, it would be better for all concerned if a single standard could be developed to remove any chance of confusion.'

(U.S.) 'It would preclude consumer commodities that do not meet SP 112, PI 910 and other air transport specific requirements from inadvertently being accepted for air transport. I fully support this approach.'

(U.K.) 'At first glance it would appear to be worth investigating, providing we were happy there was no potential for mis-classification.'

(IFALPA) 'If it makes a clear distinction between yes or no acceptable for airtransport; there might be a benefit here.'

(Japan) We agree that a distinct UN number for consumer commodities transported by air should be adopted.

Question # 6: Does the Panel favor the change of the name "limited quantities" to "dangerous goods packed in small quantities"?

Answer: Conditional no

Individual Comments:

(Australia) 'I'm not totally opposed to change in this area, but need to be convinced of the need to change. The alternative given here is too wordy and, in my view, tells us very little. After all, some explosives are shipped in comparitively small quantities, but they pack a big punch! I believe the "note" preceding the LQ info in the TI in Part 3;4 conveys the necessary info. Should ICAO have LQ provisions for items the UN does not, rationalisation should be undertaken.'

(IATA) 'The term "dangerous goods packed in small quantities" is cumbersome and doesn't provide any indication of what it really means. For the air-mode the provisions are not just about the quantity of dangerous goods, but the rather the packaging standard. "Dangerous goods packed in small quantities" is more akin to the Excepted quantity provisions.'

(U.S.) 'Once the UN amends the limited quantity and consumer commodity requirement, I think the Panel should review the requirements of the TI to see if any changes could be made to avoid confusion. However, I do not support using the proposal to change "limited quantities" to dangerous goods packed in small quantities" in the Model Regulations.'

(Canada) 'Using the term 'limited quantities' may create confusion if there is a difference between the new requirements and the old requirements. The term 'dangerous goods in small quantities' is somewhat cumbersome. However, if the hazard class label is used it would permit the adoption of a new, shorter description: 'Small Quantities'.'

(Japan) No change of the name is necessary.

Question # 7: Does the Panel favor changing the inner packaging limits for consumer commodities in P910 or limited quantities currently in the Y packing instructions?

Answer: No

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APPENDIX B

LIMITED QUANTITIES

Transmitted by the experts from Canada and France

1. During the last session of the Sub-Committee, a discussion was held on provisions concerning "limited quantities", as defined in Chapter 3.4., based on an informal paper from a working group whose last meeting took place in Ottawa on 22 to 24 October 2003. (see paras. 51 to 55 of the report). This document was meant to present new requirements suitable for all modes of transport in order to achieve harmonization on that subject

2. Because no decision could be made on the basis of an informal paper, the experts from France and Canada offered to draft a formal paper based on the results obtained by the working group up to that point and comments made during the Sub-Committee meeting.

3. This is the purpose of this document.

4. After the last session of the Sub-Committee, there were still some options open for discussion. These are reflected in the alternative proposals for amendments to the model rules presented in Annexes 1 and 2 of this document. Modified text appears in bold italics. In both proposals some parts of the text were not subject to consensus and appear in square brackets.

5. Both options are meant to provide a system that could be implemented in different modal regulations to cover the concept of limited quantities as currently defined in IMDG and some land modes, the concept of consumers commodities as currently defined in the ICAO Technical Instructions (ID 8000), The concept of "household products"…
But they would not cover the current concept of "limited quantities" as defined in the ICAO Technical Instructions because in this last case the exemptions are related mainly to the use of non approved packagings.
The title has been changed to "DANGEROUS GOODS PACKED IN SMALL QUANTITIES", in order to avoid future confusion.
This change would not be necessary if consistent changes were made to the ICAO T.I. with respect to limited quantities.

6. The discussions on excepted quantities, at this point, do not allow presentation of a formal proposal for consideration by the Sub-Committee. Annex 3 of this document reproduces the text of Part 1, Chapter 2, Section 2.4 of the ICAO technical instructions for information and further discussion

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Annex 1

Option 1

With different requirements for dangerous goods packed in small quantities suitable for retail sale and others.

1. Amendments to chapter 3.4

CHAPTER 3.4

DANGEROUS GOODS PACKED IN SMALL QUANTITIES

3.4.1 This Chapter provides the provisions applicable to the transport of certain ***dangerous goods packed in small quantities***. The applicable quantity for the inner packaging or article is specified for each substance in Column 7 of the Dangerous Goods List in Chapter 3.2. In addition, the word "None" has been indicated in Column 7 of the Dangerous Goods List in Chapter 3.2 for each entry not permitted to be transported in accordance with this Chapter. All provisions and requirements of these Regulations apply to the transport of ***dangerous goods packed in small quantities*** except as specifically provided in this Chapter.

3.4.2 Dangerous goods shall be packed only in inner packagings placed in suitable outer packagings. However, the use of inner packagings is not necessary for the transport of articles such as aerosols or "receptacles, small, containing gas". The packagings shall meet the provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 and be so designed that they meet the constructions requirements of 6.1.4. The total gross mass of the package shall not exceed 30 kg.

3.4.3 Shrink-wrapped or stretch-wrapped trays meeting the conditions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 are acceptable as outer packagings for articles or inner packagings containing dangerous goods transported in accordance with this Chapter, except that inner packagings that are liable to break or be easily punctured such as those made of glass, porcelain, stoneware or certain plastics, materials, etc., shall not be transported in such packagings. The total gross mass of the package shall not exceed 20 kg.

3.4.4 Liquid goods of Class 8, packing group II in glass, porcelain or stoneware inner packagings shall be enclosed in a compatible and rigid intermediate packaging.

3.4.5 Different dangerous goods packed in small quantities may be placed in the same outer packaging provided they will not interact dangerously in the event of leakage.

3.4.6 Packages of dangerous goods transported according to this Chapter need not be labeled. Any segregation provisions for dangerous goods need not apply within a ***transport unit***.

3.4.7 ***For the transport of dangerous goods packed in small quantities, information mentioned in 5.4.1.4. and 5.4.1.5. are not required in the transport document. However, [the document shall indicate:***

- ***the words "dangerous goods packed in small quantities"***

- ***or "UN 8000 consumer commodities" if 3.4.9. applies***
- ***the class (including subsidiary risk)***
- ***the gross mass for each type of goods defined by class and subsidiary risk]***

3.4.8 ***Packages containing dangerous goods in small quantities need not be marked with the proper shipping name of the contents, but shall be marked with the UN number of the contents preceded by the letters "UN" placed within a diamond that has a minimum dimension of 100 x100 mm (if the size of the package so requires, the dimensions may be reduced, provided the marking remain clearly visible). The width of line forming the diamond shall be at least 2 mm; the number shall be at least 6 mm high. Where more than one substance is included in the package and the substances are assigned to different UN numbers, then the diamond shall be large enough to include each relevant UN number. The mark shall be applied on at least one side or end of the outer packaging and conform to the provisions of paragraphs 5.2.1.2(a) to (d).***

3.4.9 ***Dangerous goods packed in small quantities, that are consumer commodities, and are in a quantity and concentration that makes them suitable for sale to and for direct household or personal use by consumers may be marked "UN8000" instead of the UN number of the contents as required in 3.4.8.***

3.4.10 ***Transport units where the total load of dangerous goods packed in small quantities exceeds [****a figure between* ***3 to 10 tons*** *to be determined by the sub-committee****] gross mass shall be a marked with ["UN 8000"in black digit not less than 65 mm high placed within a white diamond with minimum dimension 250X250 mm with a black line running 12,5 mm inside the edge and parallel with it.] This marking shall be displayed:***

- ***on each of the two external lateral walls in the case of a rail vehicle;***
- ***on each of the two external lateral walls and the rear wall in the case of road vehicle;***
- ***on each of the two external lateral walls and on both end for other cargo transport units***

2. <u>Consequential amendments</u>

1. Add the following entry in the dangerous goods list

UN No.	Name and Description	Class or division	Subsid-iary risk	UN packing group	Special provisions	Limited quantities	Packagings and IBCs	
							Packing Instruction	Special Provisions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8000	CONSUMER COMMODITIES	See chapter 3.4 and paragraph 3.4..9.-						

2. delete 5.4.1.5.2 and renumber the following paragraphs accordingly.

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Annex 2

Option 2

Only one set of requirements for all dangerous goods packed in small quantities

Amendments to chapter 3.4

CHAPTER 3.4

DANGEROUS GOODS PACKED IN SMALL QUANTITIES

3.4.1 This Chapter provides the provisions applicable to the transport of certain ***dangerous goods packed in small quantities***. The applicable quantity for the inner packaging or article is specified for each substance in Column 7 of the Dangerous Goods List in Chapter 3.2. In addition, the word "None" has been indicated in Column 7 of the Dangerous Goods List in Chapter 3.2 for each entry not permitted to be transported in accordance with this Chapter. All provisions and requirements of these Regulations apply to the transport of ***dangerous goods packed in small quantities*** except as specifically provided in this Chapter.

3.4.2 Dangerous goods shall be packed only in inner packagings placed in suitable outer packagings. However, the use of inner packagings is not necessary for the transport of articles such as aerosols or "receptacles, small, containing gas". The packagings shall meet the provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 and be so designed that they meet the constructions requirements of 6.1.4. The total gross mass of the package shall not exceed 30 kg.

3.4.3 Shrink-wrapped or stretch-wrapped trays meeting the conditions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 are acceptable as outer packagings for articles or inner packagings containing dangerous goods transported in accordance with this Chapter, except that inner packagings that are liable to break or be easily punctured such as those made of glass, porcelain, stoneware or certain plastics, materials, etc., shall not be transported in such packagings. The total gross mass of the package shall not exceed 20 kg.

3.4.4 Liquid goods of Class 8, packing group II in glass, porcelain or stoneware inner packagings shall be enclosed in a compatible and rigid intermediate packaging.

3.4.5 Different dangerous goods packed in small quantities may be placed in the same outer packaging provided they will not interact dangerously in the event of leakage.

3.4.6 Packages of dangerous goods transported according to this Chapter need not be labelled. Any segregation provisions for dangerous goods need not apply within a ***transport unit***.

3.4.7 ***For the transport of dangerous goods packed in small quantities, information mentioned in 5.4.1.4 and 5.4.1.5. are not required in the transport document. However, [the document shall indicate:***

- ***the words "UN 8000 DANGEROUS GOODS PACKED IN SMALL QUANTITIES"***
- ***the class (including subsidiary risk)***
- ***the gross mass for each type of goods defined by class and subsidiary risk]***

3.4.7 ***Packages containing dangerous goods in small quantities need not be marked with the proper shipping name of the contents, but shall be marked with "UN 8000" at least 6 mm high placed within a diamond that has a minimum dimension of 100x100 mm (if the size of the package so requires, the dimensions may be reduced, provided the marking remain clearly visible). The width of line forming the diamond shall be at least 2 mm. The mark shall be applied on at least one side or end of the outer packaging and conform to the provisions of paragraphs 5.2.1.2(a) to (d).***

3.4.8 ***Transport units where the total load of dangerous goods packed in small quantities exceeds [****a figure between* ***3 to 10 tons*** *to be determined by the sub-committee****] gross mass shall be a marked with ["UN 8000"in black digit not less than 65 mm high placed within a white diamond with minimum dimension 250X250 mm with a black line running 12,5 mm inside the edge and parallel with it.] This marking shall be displayed:***

- ***on each of the two external lateral walls in the case of a rail vehicle;***
- ***on each of the two external lateral walls and the rear wall in the case of road vehicle;-***
- ***on each of the two external lateral walls and on both end for other cargo transport units***

2. <u>Consequential amendments</u>

1. Add the following entry in the dangerous goods list

UN No.	Name and Description	Class or division	Subsid-iary risk	UN packing group	Special provisions	Limited quantities	Packagings and IBCs	
							Packing Instruction	Special Provisions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8000	DANGEROUS GOODS PACKED IN SMALL QUANTITIES	See chapter 3.4						

2. delete 5.4.1.5.2 and renumber the following paragraphs accordingly

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Annex 3

2.4 DANGEROUS GOODS IN EXCEPTED QUANTITIES

Secretarial Note.— Part 1; Section 2.4 of the Technical Instructions is not reproduced.

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