



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-FIRST MEETING

Montréal, 5 to 16 November 2007

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

PACKING INSTRUCTION REFORMATTING — COMMENTS ON DGP/21-WP/59

(Presented by the Packing Instruction Working Group (PIWG))

SUMMARY

This working paper provides comments on the items set out in DGP/21-WP/59 on the reformatting of the packing instructions.

Action by the DGP is in paragraph 2.

1. INTRODUCTION

1.1 The Packing Instructions Working Group (PIWG) appreciates the effort taken by the European Chemical Industry Council (CEFIC) ([DGP/21-WP/59](#)) in analysing and commenting on the reformatted packing instructions as submitted by the PIWG in [DGP/21-WP/4](#).

1.2 The reformatting exercise has been a lengthy and sometimes difficult process and it is inevitable that some errors or omissions have been made in producing a complete rewrite of the packing instructions. [DGP/21-WP/59](#) provides a comprehensive list of questions and comments. This working paper contains a reproduction of that list with a response from the PIWG below each question or comment.

2. ACTION BY THE DGP

2.1 The DGP is invited to *note* the following responses to the questions and comments raised in [DGP/21-WP/59](#).

2.1.1 The following UN-Numbers were allowed for transport and are **now forbidden** according the new DRAFT:

in Limited Quantities: UN 1222-II, 1865-II.

per Passenger Aircraft: UN 1222-II, 1865-II, 1921-I, 3095-I, 3096-I, 3124-I, 3125-I, 3129-II, 3130-II, 3208-II, 3209-II, 3301-I, 3336-I (2 entries)

per Cargo Aircraft: UN 1222-II, 1261-II, 1865-II, 3095-I, 3096-I, 3124-I, 3125-I, 3301-I, 3319

2.1.1.1 We are of the opinion that entries in the dangerous goods list cannot be forbidden without any justification. Annex II shows the forbidden entries of the dangerous goods list.

PIWG Response: During the reformatting process, the provisions of the UN Model Regulations were consulted to ensure that where possible the ICAO packing instruction provisions would align with, or be consistent with, those in the Model Regulations. The majority of the UN numbers identified in [DGP/21-WP/59](#) as shown above are assigned to P099 in the Model Regulations. P099 requires that only packagings approved by the competent authority for the substance may be used.

The PIWG believed that it was inconsistent for these substances to be generally approved in air transport, when for other modes of transport competent authority approval is required. The PIWG are of the opinion that these substances had been adopted into the Technical Instructions by omission rather than by a deliberate decision of the panel. The panel is invited to consider if it is appropriate for these substances to be allowed in air transport, and if so, under what conditions.

2.1.2 **Packing Instructions Y445 – Y448** are listed between PI 477 and PI 478 in the new PI's.. Instead they should be between Y443 and PI 450.

PIWG Response: This appears to be an issue of layout that the Secretary can address.

2.1.3 **Plywood Drums (Code 1D) almost disappeared from the PI's.** They have only been kept in the new PI's 371, 953, 961, and 964. In countless numbers of other packing instructions this pack type does no longer exist. It was permitted as outer packaging and, in combination with a liner, also as Single Packaging (old PI's 417, 420, 434, 511, 512, 518, 519, 607, 615, 619, 816, and 823). This pack type should be kept in the PI's.

PIWG Response: This was an error of omission and plywood drums (1D) will be reinstated into the applicable packing instructions.

2.1.4 **UN 1818 Silicon tetrachloride:** one member indicated that, considering that UN 1818 is a Chlorosilane, it should be treated as such and therefore be forbidden on Passenger Aircrafts.

PIWG Response: There appears to be merit in the comment. However, it is probably more appropriate to review all chlorosilane entries particularly following the decision by the UN Subcommittee to develop a specific packing instruction (P010) for chlorosilanes.

2.1.5 **PI 494** indicates a quantity limit of 60 L per SP for UN 3399-III. But the permitted Single Packtypes are not mentioned in the PI.

PIWG Response: This was an error of omission and single packagings will be reinstated.

2.1.6 **Fibreboard Drums (Code 1G)** are no longer permitted as SP's. They were listed in the old PI's 417, 418, 420, 434, 511, 512, 518, 519, 607, 615, 619, 816, 823 and 911. Together with a plastic liner they have proven to be a safe pack type. They should be kept as Single Packagings!

PIWG Response: This was an error of omission and fibre drums (1G) will be reinstated into the applicable packing instructions.

2.1.7 **New PI 959** — No packtypes have been listed at all!

PIWG Response: This had already been identified and corrected.

2.1.8 **Jerricans** (Codes 3A.., 3B.., 3H...) have been deleted in the following new PI's: 550, 551, 553, 554, 555, 557, 561 and 679. They have proven to be a safe pack type. They should be kept in the Packing Instructions!

PIWG Response: This was an error of omission and jerricans will be reinstated into the applicable packing instructions.

2.1.9 **UN 1868 – Decaborane and UN 1871 Titanium hydride:** All Single Packagings (Steel drums, Aluminium drums, Steel Jerricans, etc disappeared. At least some Single Packagings should still be available!

PIWG Response: Appropriate single packagings for PG II will be added to PI 453.

2.1.10 **UN 3316 Chemical kits / First aid kit – PI 963** – The following packtypes have been deleted: 4A, 4B and 4C1. They all should be kept for these products.

PIWG Response: This was an error of omission and box type outer packagings will be added to PI 963.

2.1.11 **PI 361** — we would like to keep Plastic inner packagings.

PIWG Response: The issue of plastic packagings for Class 3 PG I substances was addressed in [DGP/21-WP/58](#). The current packing instructions for Class 3 PG I substances do not permit plastic inner packagings or plastic single packagings for cargo aircraft and the PIWG saw no reason to amend that position. If industry wish to submit a proposal to the panel to permit plastic packagings then that will be considered on its merits.

2.1.12 **UN 3314 — PI 960** states, that the outer packagings must be fitted with liners. Shouldn't they therefore be listed as "Single Packagings"? This would be in line with current provisions.

PIWG Response: The problem here is UN text. When a liner is fitted to a box is it a liner of a single packaging or a inner of a combination packaging? The UN Model Regulations are not clear and it has been debated at least once at the UN Subcommittee without a solution. The panel is invited to recommend an appropriate approach to be taken.

2.1.13 **UN 2071 — PI 961** lists outer packagings but no inners. Either IP's or Single Packagings should be listed.

PIWG Response: Perhaps this should read single packagings and add a requirement for a liner the same as PI 960.

2.1.14 **PI 351 and 361:** According the new provisions “IP Plastic” are forbidden, but allowed as Outer Packagings. This is a contradiction. We suggest to keep Plastic IP’s.

PIWG Response: Believe that the reference to outer packagings above should be single packagings. A response to the issue of plastic packagings for Class 3 PG I substances was provided in 2.1.11.

2.1.15 **New PI 670 and 677:** the old PI 619 allowed different bags as Single Packagings. Industries use special filling installations for SP-bags. If they were no longer allowed, a significant amount of money would have to be invested. We propose to keep the currently allowed bags.

PIWG Response: This is agreed. The bags presently permitted as single packagings in PI 619 will be added as single packagings in PI 670 and PI 677.

2.1.16 Paragraph 1.3 a) of the proposal indicates, that the **IP codes for inner packagings** have been removed from the packing instructions. But in our opinion, one effect has been overseen. The current TI indicates e.g.: Inner Metal (IP.3, IP.3A). The new provisions only indicate “Metal”. How should a shipper know, whether he has to use “Metal other than aluminium” IP.3 (as per 6;3.2.3.1) or “Aluminium IP.3A (as per 6;3.2.3.2)? The conclusion could be drawn, that Metal AND Aluminium can be used.

2.1.16.1 A similar problem exists for Glass and Glass Ampoules, for Glass, earthenware and wax and last but not least the bags. We therefore suggest, questioning the idea of removing the IP codes. In fact we propose to keep the IP codes. They are quite helpful for shippers. Misunderstandings and unnecessary errors can be avoided.

2.1.16.2 (One member suggested, revising the IP specifications/requirements as well. But as this is not part of this P.I.-Reformatting we might come back to this topic at a later stage. The detailed comments in this respect can be sent to the DGP-WG.)

PIWG Response: As identified at the DGP Working Group of the Whole Meeting in Memphis (see report, [DGP-WG/07-WP/75](#), paragraph 8.2.5 a)), the IP codes were removed from the packing instructions consistent with the approach taken in the UN Model Regulations and the modal regulations. Selection of an appropriate type of inner packagings based on the allowable category e.g. steel or aluminium inner packagings where “metal” is indicated, is for the shipper to determine based on the characteristics of the substance.

2.1.17 **UN 1571 – PI 456** offers only one IP. An alternative (e.g. Plastic as in the current TI) would be preferable for industry.

PIWG Response: This is agreed. Plastic inner packagings will be added to PI 456.

2.1.18 **New PI 473 and 475:** they now require PG II performance standards for these PG III-products. This should be corrected.

PIWG Response: These substances are currently in PI 419/420, which requires PG II standard packaging for PG III substances.

2.1.19 **UN 2590 – PI 961:** we propose to keep Steel Drums 1A2 as Single Packagings.

PIWG Response: This is agreed. Steel drums (1A2) as presently permitted as single packagings in PI 909 will be added as single packagings in PI 961.

2.1.20 **UN 2803:** we propose to keep Steel Jerricans 3A2.

PIWG Response: While steel jerricans (3A2) are currently permitted in PI 804 this is inconsistent with the provisions of P803 used by the other modes of transport. The new PI 867 applicable to UN 2803 — Gallium has the same packagings as in P803.

2.1.21 **UN 2029 – PI 854:** all Single Packagings have been removed. This should be corrected.

PIWG Response: This is hydrazine PG I, which has two subsidiary risks, Class 3 and Division 6.1. While it is currently permitted in single packagings per PI 813, the PIWG believed that this is inconsistent with the hazard of the substance. The panel is invited to consider the comments in [DGP/21-WP/59](#) and to recommend an appropriate course of action.

2.1.22 **Reduced Quantities** – For a big number of entries in the DG-List the allowed quantities per Inner or per Outer have, partly drastically, been reduced. A change of such thresholds is easily done in a document, but the consequences for affected companies are significant. We propose that these changes are only made based on a found justification.

PIWG Response: Without having specific instances of quantity reductions it is not possible to comment in any detail.

2.1.23 Paper Bags as Single Packagings have been removed from a number of PI's. We propose to keep the following bags: 5L3, 5H3, 5H4, 5M1 and 5M2 **for UN 3077 in PI 968**. This is a very common packtype for these products. The same argument as in 2.1.15 is valid.

PIWG Response: This had already been identified and corrected.

2.1.24 **Layout of PI 967 and 968:** The layout for the Combination Packagings should be improved by drawing lines.

PIWG Response: This is an editorial matter that can be addressed as the packing instructions are formatted for inclusion into the Technical Instructions.

2.1.25 **PI 370** indicates that Metal Packagings must be corrosion resistant.... for substances with a class 8 sub risk. Though this PI is assigned to UN 3269 only which has no such sub risk. Therefore this requirement can be deleted.

PIWG Response: Agreed. This will be corrected in the packing instruction.

2.1.26 **PI 968** indicates that the Boxes listed under “Singe Packagings” must be fitted with a suitable liner. We just would like to raise the question, whether it would be sufficient to assign the asterisk to 4C2, 4D, 4F and 4G only.

PIWG Response: This appears to be a reasonable request. The note will be amended to apply only to 4C2, 4D, 4F and 4G drums.

2.1.27 For UN 1888 Chloroform the special PI 680 was created. We propose to delete PI 680 and assign PI 655 for Passenger Aircrafts and PI 663 for Cargo Aircraft. These Packing Instructions are used for other Class 6.1 PG III entries. Or have we overseen a major difference between them?

PIWG Response: This substance has narcotic properties, which require additional packaging considerations. As this substance may no longer be widely used it may be appropriate for there to be further investigation as what quantities are placed in transport and therefore what packing requirements are appropriate.

2.1.28 A new text concerning closures in 4; 1.1.4 has been proposed under paragraph 1.3 d) of the proposal. Our members raised a number of questions in this context:

2.1.28.1 Is this applicable on all packages or only inner packages?

PIWG Response: Yes it applies to all packagings.

2.1.28.2 Is this applicable on packages for liquids or both liquids and solids?

PIWG Response: Yes it applies to all substances.

2.1.28.3 Will the existing requirements on the use of absorbing material remain or will they be changed/ deleted?

PIWG Response: Revision or amendment of the current provisions for absorbent material as set out in Part 4;1.1.10 was not part of the mandate of the PIWG. What the PIWG has done is to rationalise the requirement for absorbent material as contained in the packing instructions.

2.1.28.4 Is the list of secondary closures limited to the indicated ones or are they just examples?

PIWG Response: The text states “such methods include” therefore other methods may be used providing they give the same result.

2.1.29 In order to help industry with the envisaged workload, we kindly ask the Secretary to make the final **Dangerous Goods List publicly available** by means of an Excel-file.

PIWG Response: It is anticipated that the final packing instructions and the dangerous goods list showing the current packing instruction numbers and the new packing instruction numbers would be made available by June 2008.

2.1.30 We informed the DGP at the Memphis meeting, that we need a **transitional period** of two years for training, changes of databases etc. We suggest that the new packing instructions be announced in the 2009-2010 edition of the Technical Instructions to make everyone involved aware of the coming changes. The new provisions would have to be applied at the latest on 1 January 2011.

2.1.30.1 Many companies produce “on stock”. This means, at the date of production they do not know yet whether the product will be shipped in one week or three months. We would therefore strongly

suggest offering the possibility to apply the new packing instructions already on 1 January 2010. For such shipments a remark could be made in the Shippers Declaration (e.g. "Packed in accordance with the ICAO Technical Instructions 2011-2012").

PIWG Response: One of the decisions for the panel in considering the reformatted packing instructions in [DGP/21-WP/4](#) is to determine an introduction date and possible transition arrangements.

2.1.31 The question is raised whether it is necessary to indicate the packing groups in the new packing instructions. The packing instructions are assigned to a specific UN Number and packing group and can be found in the dangerous goods list. Therefore this seems to be superfluous.

PIWG Response: The PIWG believes that having the packing group shown in the packing instruction provides an additional check for the users of the packing instructions and there is value in retaining this information.

— END —