

ICAO Packing Instructions Adopted during DGP 21



Federal Aviation Administration



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Background

- The working group process began 6 years ago.
- Two drafts were developed with the current format of the ICAO TIs.
- This is a third draft which is a new format and a systematic approach was adopted during DGP 21.



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Systematic Approach

- **BASIC CATEGORIES USED TO ASSIGN A PI.**
 - CLASS/DIVISION
 - AIRCRAFT TYPE – PAX/CAO
 - Packing Group
 - FORM – liquid/solid
- **THE ADDITIONAL REQUIREMENTS ARE BASED ON THE SAME STRUCTURE.**



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Principles

- **Authorization for use of single packaging was not changed.**
- **In many of the draft PIs a wider range of packaging types are authorized.**
- **This is a result of advanced materials and the consistent application of additional packaging requirements.**

Compatibility Requirements

- **TI has always contained the requirement for persons packaging the dangerous goods to determine the compatibility of their material with the packaging.**
- **The requirements in the TI (4;1.1.3) are now emphasized and the specific materials allowed to be used for packaging are determined by the user.**

Liners and Secondary Closures

- **The requirement for inner liners, which had been introduced for liquid dangerous goods, are removed from all packing instructions except those for substances in Packing Group I**
- **This is replaced by a requirement that there must be positive means of ensuring that closures remain effective; a liner will still be required where secondary means of closure cannot be applied. This requirement is specifically identified in each packing instruction by reference to 4;1.1.4.**

Secondary means of closure

- The body and closure of any packaging must be so constructed as to be able to adequately resist the effects of temperature and vibration occurring in normal conditions of transport. Closures must be held securely, tightly and effectively in place by secondary means. Examples of such methods include: adhesive tape, friction sleeves, welding or soldering, positive locking wires, locking rings, induction heat seals and child resistant closures. The closure device must be so designed that it is unlikely that it can be incorrectly or incompletely closed.

Secondary means of closure

- When secondary means of closure cannot be applied to an inner packaging containing liquids the inner packaging must be securely closed and placed in a leakproof liner and then placed in an outer packaging.

Limited Quantity

- Except for special substances there is no link between the packing instruction numbers for limited quantity packing instructions and the regular packing instruction for a substance. This was to facilitate developing a universal version of the limited quantity packing instructions;

Limited Quantities

- The majority of the requirements are in the packing instruction. This is to assist shippers in awareness of requirements for limited quantity packages. The requirements are much more apparent in the packing instruction.
- Consideration could be given to relocating the remaining requirements in Part 3 to appropriate sections and eliminating that section.



Outer Quantity Principle

- The terms of reference for the working group to complete the packing instruction rewrite included the criteria that the outer quantities currently in the ICAO TIs for all of the included substances were not to be changed unless individually approved by the ICAO DGP.
- No outer quantities were changed other than several proposed by working paper at the 20th DGP.



Inner Quantities

- Some inner packaging quantities are less restrictive and some are more restrictive.
- To comply with the terms of reference for the working group to not change any outer quantities, some inner quantities had to change.



Substance grouping

- Mercaptans
- Silanes
- Water Reactive
- Water Reactive and self heating
- Multiple hazard substances

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IP Codes

- **IP codes for inner packagings have been removed from the packing instructions.**
 - This is consistent with the approach taken in the UN Model Regulations.
 - The packing instructions will contain a reference to Part 6;3.2, which will continue to describe the requirements for the different inner packagings;

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Numbering System

- **Packing instructions will retain the three numeric numbering scheme with the first number identifying the applicable class.**
 - To ensure that there is no confusion between the existing packing instructions and the reformatted packing instructions all new numbers have been applied.

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Numbering System

- **The new numbers also allow the substances and articles to be broken up by**
 - passenger aircraft / cargo aircraft,
 - solid / liquid within each class/division.
 - systematic application of numbers for each class / division.

Changing Data Systems

- **Class 4 PIs are now divided by Div.**
- **A spread sheet will be made available to assist in changing the numbers.**
- **The spreadsheet has every affected UN # with the old and new packing instruction.**
- **There are drop down features built into the table to assist in making changes to electronic systems.**

General Packing Requirements


- **A requirement that there must be a secondary means of ensuring closures remain effective is now included in Part 4;1.1.4.**
- **Examples of such methods include: by use of an adhesive tape, friction sleeves, welding or soldering, positive locking wires, locking rings, induction heat seals and child resistant closures.**



Thank You!

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