



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/23)**

Rio de Janeiro, Brazil, 15 to 19 May 2023

- Agenda Item 2: Managing air-specific safety risks and identifying anomalies (REC-A-DGS-2025)**
2.2: Develop proposals, if necessary, for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2025-2026 Edition
- Agenda Item 4: Managing safety risks posed by the carriage of lithium batteries by air (Ref: Job Card DGP.003.04)**

RETENTION OF DOCUMENTS BY THE SHIPPER

(Presented by Eric Gillett)

SUMMARY

This paper outlines the importance of correct classification and the difficulty for States to verify the effectiveness of this process during oversight and enforcement.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 Correct classification is a critical step in the preparation of dangerous goods for transport and is essential for the subsequent actions for identification, packing, marking, labelling, and documentation. In addition, for some commodities the classification process requires tests to have been performed which are intended to demonstrate that the commodity may be transported safely in non-incident circumstances.

1.2 For example, the classification criteria for lithium batteries within Part 2.9 of the Technical Instructions include requirements that each cell or battery is of the type proved to meet the requirements of each test of the *UN Manual of Tests and Criteria*, Part III, subsection 38.3; and that they be manufactured under a quality management programme. The UN38.3 requirements include simulated abuse conditions such as impact, vibration, thermal and forced discharge tests.

1.3 When States conduct routine safety oversight upon shippers or investigate incidents it is often difficult to verify that previously shipped dangerous goods were classified correctly, because there

is no specific requirement within the Technical Instructions for the shipper to retain evidence of the basis for classification. Whilst the shipper or freight forwarder may have retained other documentation such as commercial invoices and packing lists, often these do not identify the commodities in sufficient detail to enable further evidence of classification to be sought. Furthermore, the Technical Instructions do not obligate the shipper to make such information available to the national competent authority.

1.4 The following extract from the Final Air Accident Investigation Report of UPS Flight 6 incident of 3 September 2010 issued by the General Civil Aviation Authority of the United Arab Emirates illustrates that compliance with the classification requirements should not be assumed and demonstrates that correct classification is a subject worthy of review by States during routine oversight of shippers and occurrence investigations:

“Of the 10 shipments that contained lithium batteries, nine were lithium ion batteries and one was of the lithium metal variety. According to the information provided by the shippers, three of these nine shipments, Item #7, Item #8, and Item #13, contained lithium ion battery packs with Watt-hour (Wh) ratings significantly greater than 100Wh, which classifies them as Class 9 materials. Accordingly, these shipments should have been shipped as regulated materials per ICAO Technical Instructions, and thus should have appeared on the cargo manifest. Two of these three shipments, Item #7 and Item #8, were located inside containers situated in positions 6L and 6R, respectively; which are located beneath the area of interest due to systems indications on the flight recorders, Item #13 was located at position 10R. The same shipper was responsible for Item #8 and Item #13. While the shipper indicated that testing of the batteries was completed in accordance with UN Standards, no UN Test Report was provided to verify that such tests were completed. Additionally, the MSDS provided did not coincide with the battery model numbers given by the shipper. Further, the product leaflets provided by the shipper do not match the description of the battery types listed on packing lists and the battery specifications are contradictory to those provided by shipper. The shipper of Item #7 provided UN Tests Reports and MSDS for the batteries in the shipment; all information appeared to be in order.

Some additional discrepancies were noted in the responses received from the shippers of Item #5, Item #15, and Item #16. Each of the shippers' responses indicated that the battery packs they shipped were not tested in accordance with UN Standards; tests which are required. Additionally, several discrepancies were noted in the MSDS provided the shipper of Item #15 and Item #16. Additionally, the shipper of Item #1 provided a UN Test Report and MSDS that did not appear to go with the battery packs contained in the shipment.”

It is noteworthy that none of the above discrepancies would have been identifiable from the documentation which the Technical Instructions requires the shipper to retain through routine oversight or dangerous goods occurrence investigation. This means that latent failures by a shipper or forwarder may remain unidentified leading to a dangerous goods accident or incident.

1.5 Whilst the example given above relates to lithium batteries, the need for correct classification applies to all dangerous goods as it has a direct impact on whether shipment is permitted, CAO limitations and packaging requirements designed to achieve safe transport.

1.6 A requirement for the shipper to retain evidence of the basis for classification would enhance the ability of States to conduct effective oversight and investigations, demonstrate that the

shipper knew the applicable requirements for classification and whether they had taken reasonable steps to comply.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to consider the amendment in Part 2;Introductory chapter and Part 5;4.4.1 of the Technical Instructions as shown in the appendix to this working paper.

APPENDIX

PROPOSED AMENDMENT TO PART 2 OF THE TECHNICAL INSTRUCTIONS

Part 2

CLASSIFICATION OF DANGEROUS GOODS

INTRODUCTORY CHAPTER

Parts of this Chapter are affected by State Variations DE 5, NL 4; see Table A-1

1. RESPONSIBILITIES

1.1 Classification must be made by the appropriate national authority when so required or may otherwise be made by the shipper.

1.2 In accordance with Part 5:4.4 of these Instructions, the shipper shall retain information or documentation which demonstrates the basis of the classification assigned to dangerous goods which have been offered for transport by air.

Note.— Examples of such information or documentation include the results of classification testing and other applicable requirements as identified within Part 2 of these Instructions, a safety data sheet issued in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), a classification made by the appropriate national authority (when so required), etc.

1.2~~3~~ A shipper who has identified, on the basis of test data, that a substance listed by name in column 1 of the Dangerous Goods List in Part 3, Chapter 2, Table 3-1 meets classification criteria for a hazard class or division that is not identified in the list, may, with the approval of the appropriate national authority, consign the substance:

- a) under the most appropriate generic or not otherwise specified (n.o.s.) entry reflecting all hazards; or
- b) under the same UN number and name but with additional hazard communication information as appropriate to reflect the additional subsidiary hazard(s) (documentation, label) provided that the primary hazard class remains unchanged and that any other transport conditions (e.g. limited quantity, packaging provisions) that would normally apply to substances possessing such a combination of hazards are the same as those applicable to the substance listed.

1.2~~3~~.1 A copy of the document of approval must accompany the consignment.

Note.— When an appropriate national authority grants such approvals, it should inform the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods accordingly and submit a relevant proposal of amendment to the Dangerous Goods List. Should the proposed amendment be rejected, the appropriate national authority should withdraw its approval.

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Part 5

SHIPPER'S RESPONSIBILITIES

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Chapter 4

DOCUMENTATION

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4.4 RETENTION OF DANGEROUS GOODS TRANSPORT INFORMATION

4.4.1 The shipper must retain a copy of the dangerous goods transport document and additional information and documentation as specified in these Instructions, for a minimum period of three months and be made available to the appropriate national authority upon request.

4.4.2 When the documents are kept electronically or in a computer system, the shipper must be able to reproduce them in a printed form.

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