



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
MEETING OF THE WORKING GROUP OF THE WHOLE**

Memphis, 30 April to 4 May 2007

Agenda Item 6: Discussion of miscellaneous dangerous goods issues

ELECTRONIC DANGEROUS GOODS TRANSPORT DATA

(Presented by D. Brennan)

SUMMARY

This paper looks at the present requirements for a physical dangerous goods transport document and seeks to explore the issues and opportunities to be able to implement electronic data transmission as an alternative to a paper document.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 At DGP-WG/06 in Beijing a paper was presented (DGP-WG/06-WP/9) that discussed the development of provisions to permit the electronic transmission of the information required in the dangerous goods transport document and the potential removal of the requirement to have a copy of the dangerous goods transport document accompanying every consignment.

1.2 Following this discussion it was agreed at DGP-WG/06 that a working group by correspondence would be set up to prepare a paper for DGP-WG/07. In January 2007 a document seeking comments was circulated to all panel members that identified all of the possible elements on the dangerous goods transport document, the format of this data, the actual or potential requirement for the data and the user of the data. See Appendix.

1.3 The purpose of this paper is continue the discussions on what steps need to be taken to be able to remove the mandatory requirement for a physical dangerous goods transport document and instead permit the use of electronic data interchange (EDI) as an alternative to a document.

1.4 In considering the use of EDI the question that needs to be answered is, what is the basis for requiring a document that contains certain information and how can those requirements be satisfied by

EDI. A review of the “requirement” column in the appendix identifies that the document, or rather the information contained on the document, serves five purposes:

- a) verification by the operator that the consignment complies with the requirements of the Technical Instructions;
- b) completion of the information to the pilot-in-command;
- c) provides pertinent information to emergency responders in the event of spill or leakage;
- d) provides pertinent information to the appropriate authority as part of accident / incident investigation;
- e) provides information to the appropriate authority as part of safety oversight audit program.

1.5 Looking at the provisions of the Technical Instructions there are a number of areas where there are specific requirements for the provision or use of a physical dangerous goods transport document. These are in addition to the requirements relating to the data that must be contained on the dangerous goods transport document as described in the appendix.

2. ACTION BY THE DGP-WG

2.1 To be able to move toward EDI as an alternative to a document there would need to be amendments made to these requirements to recognize EDI as meeting the current provisions. The specific provisions are shown below with some possible amendments suggested. The suggested amendments are provided for discussion purposes.

Part 5

Chapter 4

DOCUMENTATION

Note.— These Instructions do not preclude the use of electronic data processing (EDP) and electronic data interchange (EDI) transmission techniques as an ~~and~~ alternative to paper documentation, unless otherwise indicated.

4.1 DANGEROUS GOODS TRANSPORT ~~DOCUMENTATION~~ INFORMATION

4.1.1 General

The person who offers dangerous goods for transport by air must provide to the operator the information applicable to the consignment as set out in this paragraph. The information may be provided by EDP or EDI or as a paper document. Where a paper document is used, the person who offers dangerous goods for transport by air must provide to the operator two copies of the dangerous goods transport document, completed and signed as provided for in this paragraph.

Note.— All references to “dangerous goods transport document” in this paragraph also include provision of the required information by use of electronic data processing (EDP) and electronic data interchange (EDI) transmission techniques.

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Part 7

Chapter 1

ACCEPTANCE PROCEDURES

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1.1 ACCEPTANCE OF DANGEROUS GOODS BY OPERATORS

1.1.1 An operator must not accept from a shipper a freight container or a unit load device containing dangerous goods other than:

- a) a freight container for radioactive material (see 6;7.1);
- b) a unit load device or other type of pallet containing consumer commodities prepared according to Packing Instruction 910;
- c) a unit load device or other type of pallet containing dry ice used as a refrigerant for other than dangerous goods prepared according to Packing Instruction 904; or
- d) a unit load device or other type of pallet containing magnetized material.

1.1.2 An operator must not accept for transport aboard aircraft a package or overpack containing dangerous goods or a freight container containing radioactive material or a unit load device or other type of pallet containing the dangerous goods as described in 1.1.1 b) and c) unless:

- a) it is accompanied by two copies of the dangerous goods transport document; or,
- b) the information applicable to the consignment is available in electronic form; or
- c) where permitted, by the alternative documentation.

Where a document is provided, One copy of the document must accompany the consignment to final destination and one copy must be retained by the operator at a location on the ground where it will be possible to obtain access to it within a reasonable period; the document must be retained at this point until the goods have arrived at final destination, after which time it may be stored elsewhere. When the information applicable to the consignment is provided by use of EDI, the information must be available to the operator at all times during transport to final destination and at a location on the ground where it will be possible to obtain access to it within a reasonable period.

1.1.3 The operator must also not accept the package, overpack, freight container or a unit load device mentioned above unless the operator has inspected it, found it to be properly marked and labelled and determined that there is no leakage or other indication that its integrity has been compromised. With regard to overpacks and the packages they contain, the operator must take all reasonable steps to establish that:

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APPENDIX

DANGEROUS GOODS TRANSPORT DOCUMENT — DATA ELEMENTS

| Information | Format | TI Reference | Mandatory | Requirement (how is the data used, by whom and when) |
|--|---|----------------|-----------------|---|
| Page number | | 5;4.1.2.3 | Yes | - checked by accepting operator per 7;1.3(b); |
| Air Waybill No. | | - | | |
| Name & Address of Shipper | Individual or Company name, street address, town/city, state & country | 5;4.1.3 | Yes | - checked by accepting operator per 7;1.3(b); - incident/accident investigation |
| Name & Address of Consignee | Individual or Company name, street address, town/city, state & country | 5;4.1.3 | Yes | - checked by accepting operator per 7;1.3(b); |
| Statement that shipment is within limits for "passenger and cargo" aircraft or "cargo aircraft only" | "Passenger and cargo aircraft or "Cargo aircraft only" shown on document. | 5;4.1.5.8.1(b) | Yes | - checked by accepting operator per 7;1.3(b); - used to validate per package limit and PI number during acceptance check?; - CAO indicated on NOTOC; - incident/accident investigation |
| Airport of Departure | | - | | |
| Airport of Destination | | - | | |
| Dangerous Goods Description | | | | |
| UN Number | 4 digit number preceded by "UN" or "ID" | 5;4.1.4.1(a) | Yes | - checked by accepting operator per 7;1.3(b); - validated against PSN, etc shown in Table 3-1 during acceptance check?; - shown on NOTOC; - incident/accident investigation |
| Proper shipping name | alpha-numeric | 5;4.1.4.1(b) | Yes | - checked by accepting operator per 7;1.3(b); - validated against UN number, etc. shown in Table 3-1 during acceptance check?; - shown on NOTOC; - incident/accident investigation |
| Class/Division | numeric | 5;4.1.4.1(c) | Yes | - checked by accepting operator per 7;1.3(b); - validated against UN number, etc. shown in Table 3-1 during acceptance check?; - shown on NOTOC; - incident/accident investigation |
| Subsidiary risk | numeric | 5;4.1.4.1(d) | When applicable | - checked by accepting operator per 7;1.3(b); - validated against UN number, etc. shown in Table 3-1 during acceptance check?; - shown on NOTOC; - incident/accident investigation |

| Information | Format | TI Reference | Mandatory | Requirement (how is the data used, by whom and when) |
|--|--|--------------|------------------------|---|
| Packing Group | Roman I, II or III | 5;4.1.4.1(e) | When applicable | - checked by accepting operator per 7;1.3(b); - validated against UN number, etc. shown in Table 3-1 during acceptance check?; - shown on NOTOC; - incident/accident investigation |
| Supplementary Information to PSN | | | | |
| Technical name | alpha-numeric added following PSN | 5;4.1.4.3(a) | When applicable | - checked by accepting operator per 7;1.3(b); - shown on NOTOC |
| Empty Uncleaned | "Empty uncleaned" or "Residue last contained" before or after PSN | 5;4.1.4.3(b) | When applicable | |
| Wastes | "Waste" before or after PSN if not part of PSN | 5;4.1.4.3(c) | When applicable | |
| Elevated temperature substances | For solids "Molten" must be shown if not part of PSN | 5;4.1.4.3(d) | When applicable | |
| Information Required in Addition to the Dangerous Goods Description | | | | |
| Quantity of dangerous goods, number and type of packagings | numeric for number or packages, description of packaging type, numeric for volume or mass followed by unit of measurement | 5;4.1.5.1 | Yes | - checked by accepting operator per 7;1.3(b); - validated against PSN, etc shown in Table 3-1 during acceptance check?; - shown on NOTOC; - incident/accident investigation |
| Limited quantity | "Limited quantity" or "LTD QTY" shown | 5;4.1.5.2 | When applicable | - checked by accepting operator per 7;1.3(b); - validated against PSN, etc shown in Table 3-1 during acceptance check?; - incident/accident investigation |
| Salvage packagings | "Salvage package" shown as packaging type? | 5;4.1.5.3 | When applicable | |
| Chemical oxygen generators | "Aircrew protective breathing equipment (smoke hood) in accordance with Special Provision A144" shown | 5;4.1.5.4 | When applicable | - statement must be shown on NOTOC following PSN |
| Self-reactive substances & organic peroxides | - "self-reactive substance transported under approval" or "organic peroxide transported under approval" shown?; - "sample self-reactive substance" or "sample organic peroxide" | 5;4.1.5.5 | When applicable | Self-reactive substances and organic peroxides transported under approval must have a copy of the classification approval including condition of transport attached to document. |
| Infectious substances & controlled substances | Name and telephone number of a responsible person | 5;4.1.5.6 | When applicable | - incident/accident response; - incident/accident investigation |

| Information | Format | TI Reference | Mandatory | Requirement (how is the data used, by whom and when) |
|--|--|----------------|--------------------------------|---|
| Radioactive material | - name or symbol of radionuclide; - description of physical and chemical form, "Special form" or "Low dispersible material"; - numeric of activity followed by Bq or for fissile the mass followed by unit of measurement; - category of package; - transport index (for II-Yellow and III-Yellow only); - criticality index for fissile materials, other than as excepted; - identification mark for each competent authority certificate; - number of packages; - "Exclusive use shipment" shown when applicable | 5;4.1.5.7 | Yes, for Class 7 | - checked by accepting operator per 7;1.3(b); - number or packages, category and transport index shown on NOTOC; - incident/accident investigation |
| Packing instruction number | 3 digit number prefaced by "Y" for limited quantity | 5;4.1.5.8.1 a) | Yes, except for Class 7 | - checked by accepting operator per 7;1.3(b); - validated against PSN, etc shown in Table 3-1 during acceptance check? |
| Special handling information | | 5;4.1.5.8.1(c) | When applicable | |
| Overpack used | "Overpack used" shown | 5;4.1.5.8.1 d) | When applicable | - checked by accepting operator per 7;1.3(b); - validated against PSN, etc shown in Table 3-1 during acceptance check?; - shown on NOTOC?; - incident/accident investigation |
| "Q" value | "Q= followed by number ≤ 1 | 5;4.1.5.8.1 e) | When applicable | - checked by accepting operator per 7;1.3(b); |
| Packing Instruction 101 | "Packaging authorized by the competent authority of (followed by VRI code of country)" shown | 5;4.1.5.8.2 | When applicable | - checked by accepting operator per 7;1.3(b); |
| Self-reactive substances & organic peroxides | "The packages containing (UN number of substance) must be protected from direct sunlight and all sources of heat and be placed in adequately ventilated areas" shown | 5;4.1.5.8.3 | When applicable | - checked by accepting operator per 7;1.3(b);? |
| Certification & Air transport Certification | Required certification statements | 5;4.1.6.1 | Yes | - checked by accepting operator per 7;1.3(b); |

| Information | Format | TI Reference | Mandatory | Requirement (how is the data used, by whom and when) |
|--|---|--|------------------------|---|
| Signature | signature of shipper (digital?) | 5;4.1.6.1 | Yes | - checked by accepting operator per 7;1.3(b); |
| Date | Applicable date | 5;4.1.6.1 | Yes | - checked by accepting operator per 7;1.3(b); |
| Additional Documentation | | | | |
| A1, A2 or A109 approval | Indication on dangerous goods transport document? | 5;4.3.1 | When applicable | Copy of the approval showing quantity limitations, packing requirements, etc. attached to document. |
| Portable tank approval | Indication on dangerous goods transport document? | 5;4.3.2 | When applicable | Copy of the approval attached to document. |
| Alternative packagings approval | Indication on dangerous goods transport document? | 5;4.3.3 | When applicable | Copy of the approval attached to document. |
| self-reactive substances & organic peroxides shipped under an approval | Indication on dangerous goods transport document? | 5;4.3.4 (duplication with 5;4.1.5.5.1?) | When applicable | Copy of the approval attached to document. |
| Dangerous goods shipped under exemption | Indication on dangerous goods transport document? | 5;4.3.5 | When applicable | - copy of all applicable State exemptions attached to document; - shown on NOTOC; |

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