International Civil Aviation Organization

DGP-WG/11-WP/4
17/1/11

WORKING PAPER

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

Atlantic City, United States, 4 to 8 April 2011

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2013-2014 Edition
2.1: Part 1 — General

DRAFT AMENDMENTS TO THE TECHNICAL INSTRUCTIONS TO ALIGN WITH THE UN RECOMMENDATIONS — PART 1

(Presented by the Secretary)

SUMMARY

This working paper contains draft amendments to Part 1 of the Technical Instructions to reflect the decisions taken by the UN Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals at its fifth session (Geneva, 10 December 2010). It also reflects amendments agreed by DGP-WG10 (Abu Dhabi, United Arab Emirates, 7 to 11 November 2010).

The DGP-WG is invited to agree to the draft amendments in this working paper.

Part 1

GENERAL

Chapter 1

SCOPE AND APPLICABILITY

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The amendments to the general applicability of approvals and exemptions Standards in Annex 18 which were agreed at DGP/23 were subsequently modified. The following amendments align the text in the Instructions with the amendment to Annex 18 adopted by Council.

1.1.2 Where specifically provided for in these Instructions, the ~~State of Origin and the State of the Operator~~ States concerned may grant an approval~~:~~

~~a) to transport dangerous goods forbidden on passenger and/or cargo aircraft where these Instructions state that such goods may be carried under an approval; or~~

~~b) for other purposes as specified in these Instructions;~~

provided that in such instances an overall level of safety in transport which is ~~at least~~ equivalent to the level of safety provided for in these Instructions is achieved.

1.1.3 In instances:

a) of extreme urgency; or

b) when other forms of transport are inappropriate; or

c) when full compliance with the prescribed requirements is contrary to public interest,

the States concerned may grant an exemption from the provisions of the Instructions provided that in such instances ~~an~~ every effort is made to achieve an overall level of safety in transport which is ~~at least~~ equivalent to the level of safety provided for in these Instructions ~~is achieved. For the purposes of exemptions, "States concerned" are the States of Origin, Operator, transit, overflight and destination.~~

1.1.4 For the State of overflight, if none of the criteria for granting an exemption are relevant, an exemption may be granted based solely on whether it is believed that an equivalent level of safety in air transport has been achieved.

Note 1.— For the purpose of approvals, "States concerned" are the States of Origin and the Operator, unless otherwise specified in these Instructions.

Note 2.— For the purpose of exemptions, "States concerned" are the States of Origin, Operator, Transit, Overflight and Destination.

Note 3.— Guidance for the processing of exemptions, including examples of extreme urgency, may be found in the Supplement to the Technical Instructions *(Part S-1;1.2 and 1.3).*

Note 4.— Refer to 1;2.1 for dangerous goods forbidden for transport by air under any circumstance.

Insert new paragraph 1.3

1.3 APPLICATION OF STANDARDS

Where the application of a standard is required and there is any conflict between the standard and these Instructions, the Instructions take precedence.

Renumber subsequent paragraphs accordingly

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Chapter 3

GENERAL INFORMATION

Parts of this Chapter are affected by State Variation BE 1; see Table A-1

3.1 DEFINITIONS

The amended definitions for "Approval" and "Exemption" in Annex 18 which were agreed at DGP/23 were subsequently modified. The following amendments align the definitions in the Instructions with the amended definition in Annex 18 adopted by Council.

Approval. An authorization granted by the appropriate national authority for:

a) the transport of ~~those entries listed in Table 3-1 as~~ dangerous goods forbidden on passenger and/or cargo aircraft ~~to which Special Provision A1 or A2 has been assigned in column 7~~ where the Technical Instructions state that such goods may be carried with an approval; or

b) other purposes as ~~specified~~ provided for in these Instructions.

Note.— In the absence of a specific reference in the Technical Instructions allowing the granting of an approval, an exemption may be sought.

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Exemption. An authorization ~~issued~~, other than an approval, granted by an appropriate national authority providing relief from the provisions of these Instructions.

Note.— The requirements for exemptions are given in 1;1.1.2.

Pressure receptacle. A collective term that includes cylinders, tubes, pressure drums, closed cryogenic receptacles, metal hydride storage systems ~~and bundles of cylinders~~[, bundles of cylinders and salvage pressure receptacles].

Salvage packagings. Special packagings into which damaged, defective, leaking or nonconforming dangerous goods packages, or dangerous goods that have spilled or leaked, are placed for purposes of transport for recovery or disposal.

[Salvage pressure receptacle. A pressure receptacle with a water capacity not exceeding 1 000 litres into which are placed damaged, defective, leaking or non-conforming pressure receptacle(s) for the purpose of transport e.g. for recovery or disposal.]

The following amendment for "State of Origin" was agreed at DGP/23. Since the definition appears in Annex 18, the amendment was not incorporated in the 2011-2012 Edition pending adoption by Council of Amendment 10 to Annex 18. The new definition will appear in teh 2013-2014 Edition.

State of Origin. The State in the territory of which the ~~cargo~~ consignment was first loaded on an aircraft.

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Chapter 4

TRAINING

Parts of this Chapter are affected by State Variations AE 2, CA 18, HK 1; see Table A-1

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DGP-WG/10-WP/38:

4.2.3 Recurrent training must be provided within 24 months of previous training to ensure knowledge is current. However, if recurrent training is completed within the final three months of validity of previous training, the period of validity extends from the ~~date~~ month on which the recurrent training was completed until 24 months from the expiry ~~date~~ month of that previous training.

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4.2.5 A record of training must be maintained which must include:

a) the individual's name;

b) the most recent training completion ~~date~~ month;

c) a description, copy or reference to training materials used to meet the training requirements;

d) the name and address of the organization providing the training; and

e) evidence which shows that a test has been completed satisfactorily.

Training records must be retained by the employer for a minimum period of 36 months from the most recent training completion ~~date~~ month and must be made available upon request to the employee or appropriate national authority.

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Chapter 5

DANGEROUS GOODS SECURITY

Parts of this Chapter are affected by State Variation US 17; see Table A-1

5.1 GENERAL SECURITY PROVISIONS

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Insert new subparagraph 5.1.3

5.1.3 The provisions of this chapter do not apply to:

a) UN 2908 and UN 2909 excepted packages;

b) UN 2910 and UN 2911 excepted packages with an activity level not exceeding the A_2 value; and

c) UN 2912 LSA-I and UN 2913 SCO-I.

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5.3 Provisions for high consequence dangerous goods

5.3.1 Definition of high consequence dangerous goods

5.3.1.1 High consequence dangerous goods are those which have the potential for misuse in a terrorist event and which may, as a result, produce serious consequences such as mass casualties, mass destruction or, particularly for Class 7, mass socio-economic disruption.

5.3.1.2 An indicative list of high consequence dangerous goods in classes and divisions other than Class 7 is given in Table 1-6.

Table 1-6. Indicative list of high consequence dangerous goods

Class 1 Division 1.1 explosives
Class 1 Division 1.2 explosives
Class 1 Division 1.3 compatibility group C explosives
Class 1 Division 1.4 UN Nos. 0104, 0237, 0255, 0267, 0289, 0361, 0365, 0366, 0440, 0441, 0455, 0456 and 0500
Class 1 Division 1.5 explosives
Division 2.3 toxic gases (excluding aerosols)
Class 3 desensitized explosives
Division 4.1 desensitized explosives
Division 6.1 substances of Packing Group 1; except when transported under the excepted quantity provisions in 3;5
Division 6.2 infectious substances of Category A (UN Nos. 2814 and 2900)
~~Class 7 radioactive materials in quantities greater than 3000 A_1 (special form) or 3000 A_2, as applicable in Type B and Type C packages.~~

5.3.1.3 For dangerous goods of Class 7, high consequence radioactive material is that with an activity equal to or greater than a transport security threshold of 3 000 A_2 per single package (see also 2;7.2.2.1) except for the following radionuclides where the transport security threshold is given in Table 1-7 below.

Table 1-7. Transport security thresholds for specific radionuclides

Element	*Radionuclide*	*Transport security threshold (TBq)*
Americium	Am-241	0.6
Gold	Au-198	2
Cadmium	Cd-109	200
Californium	Cf-252	0.2
Curium	Cm-244	0.5
Cobalt	Co-57	7
Cobalt	Co-60	0.3
Cesium	Cs-137	1
Iron	Fe-55	8000
Germanium	Ge-68	7
Gadolinium	Gd-153	10
Iridium	Ir-192	0.8
Nickel	Ni-63	600
Paladium	Pd-103	900
Promethium	Pm-147	400
Polonium	Po-210	0.6
Plutonium	Pu-238	0.6
Plutonium	Pu-239	0.6
Radium	Ra-226	0.4
Ruthenium	Ru-106	3
Selenium	Se-75	2
Strontium	Sr-90	10
Thallium	Tl-204	200
Thulium	Tm-170	200
Yterbium	Yb-169	3

5.3.1.4 For mixtures of radionuclides, determination of whether or not the transport security threshold has been met or exceeded can be calculated by summing the ratios of activity present for each radionuclide divided by the transport security threshold for that radionuclide. If the sum of the fractions is less than 1, then the radioactivity threshold for the mixture has not been met nor exceeded.

This calculation can be made with the formula:

$$\sum_i \frac{A_i}{T_i} < 1$$

Where:

A_i = activity of radionuclide *i* that is present in a package (TBq)
T_i = transport security threshold for radionuclide *i* (TBq).

5.3.1.5 When radioactive material possess subsidiary risks of other classes or divisions, the criteria of Table 1-6 should also be taken into account (see also 1;6.5).

5.3~~3~~4 SECURITY PLANS

5.3~~3~~4.1 Operators, shippers and others (including infrastructure/managers) engaged in the transport of high consequence dangerous goods (see 5.3.1) should adopt, implement and comply with a security plan that addresses at least the elements specified in 5.3~~3~~4.2. ~~High consequence dangerous goods are those which have the potential for misuse in a terrorist incident and which may, as a result, produce serious consequences such as mass casualties or mass destruction. An indicative list of high consequence dangerous goods is provided in Table 1-6.~~

Note.— When national authorities issue exemptions, they should consider all of the provisions in this Chapter.

5.3~~3~~4.2 The security plan should comprise at least the following elements:

a) specific allocation of responsibilities for security to competent and qualified persons with appropriate authority to carry out their responsibilities;

b) records of dangerous goods or types of dangerous goods transported;

c) review of current operations and assessment of vulnerabilities, including inter-modal transfer, temporary transit storage, handling, and distribution, as appropriate;

d) clear statement of measures including training policies (including response to higher threat conditions, new

employee/ employment verifications, etc.), operating practices (e.g. access to dangerous goods in temporary storage proximity to vulnerable infrastructure, etc.), equipment and resources that are to be used to reduce security risks;

e) effective and up-to-date procedures for reporting and dealing with security threats, breaches of security or security incidents;

f) procedures for the evaluation and testing of security plans and procedures for periodic review and update of the plans;

g) measures to ensure the security of transport information contained in the plan; and

h) measures to ensure that the security of the distribution of transport documentation is limited as far as possible. (Such measures must not preclude provision of the transport documentation required by Part 5, Chapter 4 of these Instructions.)

Note.— Operators, shippers and others with responsibilities for the safe and secure transport of dangerous goods should cooperate with each other and with appropriate authorities to exchange threat information, apply appropriate security measures and respond to security incidents.

5.4~~5~~ RADIOACTIVE MATERIAL

For radioactive material, the provisions of this Chapter are deemed to be complied with when the provisions of the Convention on Physical Protection of Nuclear Material[1] and the IAEA circular on “The Physical Protection of Nuclear Material and Nuclear Facilities”[2] are applied.

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— END —

1. ~~IAEA~~INFCIRC/274/Rev.1, IAEA, Vienna (1980).
2. ~~IAEA~~INFCIRC/225/Rev.4 (Corrected), IAEA, Vienna (1999). ~~See also "Guidance and Considerations for the Implementation of INFCIRC/225/Rev.4, the Physical Protection of Nuclear Material and Nuclear Facilities, IAEA-TECDoc-967/Rev.1.~~