



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-FOURTH MEETING

Montréal, 28 October to 8 November 2013

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 2015-2016 Edition

LAMPS CONTAINING DANGEROUS GOODS

(Presented by Teun Muller)

SUMMARY

The proposed introduction of new provisions for lamps containing dangerous goods in Part 1;2.6 of the 2015-2016 Edition of the Technical Instructions (see DGP/24-WP/3) may cause confusion and may potentially contradict with existing text in the Technical Instructions. This paper is proposing to adapt current and new text related to the transport of lamps containing dangerous goods in order to remove any inconsistencies.

Action by the DGP: The DGP is invited to amend the proposed new provisions for lamps containing dangerous goods in Part 1;2.6 and to amend Special Provision A69 of the Technical Instruction as presented in the appendix to this working paper.

1. INTRODUCTION

1.1 With the introduction of a new provisions for lamps containing dangerous goods in Part 1;2.6 (see DGP/24-WP/3) of the Technical Instructions, we find three different places in the Technical Instructions where the transport conditions of lamps (with the exception of lamps containing radioactive material which are addressed separately) are established:

- a) Part 1; 2.6

[2.6 LAMPS CONTAINING DANGEROUS GOODS

The following lamps are not subject to these Instructions provided that they do not contain radioactive material and do not contain mercury in quantities above those specified in Special Provision A69:

- a) lamps that are collected directly from individuals and households when transported to a collection or recycling facility;

- b) lamps each containing not more than 1 g of dangerous goods and packaged so that there is not more than 30 g of dangerous goods per package, provided that:

- 1) the lamps are certified to a manufacturer's quality management system; and

Note.— The application of ISO 9001:2008 may be considered acceptable for this purpose.

- 2) each lamp is either individually packed in inner packagings, separated by dividers, or surrounded with cushioning material to protect the lamps and packed into strong outer packagings meeting the general provisions of 4;1.1 and capable of passing a 1.2 m drop test.

- c) used, damaged or defective lamps each containing not more than 1 g of dangerous goods with not more than 30 g of dangerous goods per package when transported from a collection or recycling facility.

The lamps must be packed in strong outer packagings that are sufficient for preventing release of the contents under normal conditions of transport meeting the general provisions of 4;1.1 and that are capable of passing a drop test of not less than 1.2 m.

Note.— Lamps containing radioactive material are addressed in 2;7.2.2.2 b) and light bulbs containing Division 2.2 gases are addressed in 2;2.2.3 d).]

- b) Part 2; 2.2.3 d)

“2.2.3 Gases of Division 2.2 are not subject to these Instructions when contained in the following:

- a) foodstuffs, including carbonated beverages (except UN 1950);
 b) balls intended for use in sports;
 c) tyres which meet the provisions of Special Provision A59; or
 d) light bulbs, provided they are packaged so that the projectile effects of any rupture of the bulb will be contained within the package.”

- c) Special Provision A69

A69 The following are not subject to these Instructions when carried as cargo:

- a) articles such as thermometers, switches and relays, each containing a total quantity of not more than 15 g of mercury, if they are installed as an integral part of a machine or apparatus and so fitted that shock or impact damage, leading to leakage of mercury, is unlikely to occur under normal conditions of transport.
 b) lamps, each containing not more than 1 g of mercury and packaged so that there is not more than 30 g of mercury per package. Packages must be so designed and constructed such that when subjected to drop tests from a height of not less than 0.5 m the packages must still be fit for transport and there must be no damage to the contents.
 c) articles, each containing not more than 100 mg of mercury, gallium or inert gas and packaged so that the quantity of mercury, gallium or inert gas per package is 1 g or less.

The words “not restricted” and the special provision number A69 must be provided on the air waybill when an air waybill is issued.

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Several observations can be made:

- a) It is felt that the provisions in Part 1;2.6 a) are not applicable to air transport but are mainly a concern for the surface mode. Also, the transport of used, damaged and defective lamps from a collection or recycling facility (Part 1;2.6 c)) does not seem to fit with the philosophy of the Technical Instructions. Therefore, it seems inappropriate to incorporate the new proposed paragraphs in the 2015-2016 Edition of the Technical Instructions.

- b) Current Special Provision A69 b) imposes a drop test for lamps containing mercury of 0.5 m. The UN Model Regulations do not have this specific requirement for lamps containing mercury. However, with the introduction of new Part 1;2.6, all packages containing lamps must be capable of withstanding a 1.2 m drop test. Moreover, in accordance with Special Provision A69 b), each lamp containing mercury may not contain more than 1 g of mercury and must be packaged so that there is not more than 30 g of mercury per package. These criteria are exactly the same as the new criteria specified in Part 1;2.6.

Therefore it is proposed to delete paragraph b) of Special Provision A69.

- c) Special Provision A69 c) speaks about “articles” in general. These may include lamps, in which case some confusion may occur. For example, in accordance with this special provision a light bulb containing an inert gas such as Neon is limited to 100 mg while in accordance with Part 2;2.2.3 d) these are not subject to the Instructions. Therefore, it is felt that lamps should be excluded from Special Provision A69 c). The same approach should be taken for paragraph a) of Special Provision A69. In addition, a note could be added to Special Provision A69 referring to the provisions for lamps in Part 1;2.6

APPENDIX

PROPOSED AMENDMENT TO PART 1 OF THE TECHNICAL INSTRUCTIONS

Part 1

GENERAL

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2.6 LAMPS CONTAINING DANGEROUS GOODS [CARRIED AS CARGO]

The following lamps are not subject to these Instructions provided that they do not contain radioactive material and do not contain mercury in quantities above those specified in Special Provision A69:

- a) lamps that are collected directly from individuals and households when transported to a collection or recycling facility;
- b) lamps each containing not more than 1 g of dangerous goods and packaged so that there is not more than 30 g of dangerous goods per package, provided that:
 - 1) the lamps are certified to a manufacturer's quality management system; and
Note.— The application of ISO 9001:2008 may be considered acceptable for this purpose.
 - 2) each lamp is either individually packed in inner packagings, separated by dividers, or surrounded with cushioning material to protect the lamps and packed into strong outer packagings meeting the general provisions of 4:1.1 and capable of passing a 1.2 m drop test.

- c) used, damaged or defective lamps each containing not more than 1 g of dangerous goods with not more than 30 g of dangerous goods per package when transported from a collection or recycling facility.

The lamps must be packed in strong outer packagings that are sufficient for preventing release of the contents under normal conditions of transport meeting the general provisions of 4:1.1 and that are capable of passing a drop test of not less than 1.2 m.

Note.— Lamps containing radioactive material are addressed in 2:7.2.2.2 b) and light bulbs containing Division 2.2 gases are addressed in 2:2.2.3 d).]

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Part 3

DANGEROUS GOODS LIST, SPECIAL PROVISIONS AND LIMITED AND EXCEPTED QUANTITIES

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Chapter 3

SPECIAL PROVISIONS

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Table 3-2. Special provisions

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A69	The following are not subject to these Instructions when carried as cargo: <ul style="list-style-type: none">a) articles <u>other than lamps</u>, such as thermometers, switches and relays, each containing a total quantity of not more than 15 g of mercury, if they are installed as an integral part of a machine or apparatus and so fitted that shock or impact damage, leading to leakage of mercury, is unlikely to occur under normal conditions of transport.b) lamps, each containing not more than 1 g of mercury and packaged so that there is not more than 30 g of mercury per package. Packages must be so designed and constructed such that when subjected to drop tests from a height of not less than 0.5 m the packages must still be fit for transport and there must be no damage to the contents.e) articles <u>other than lamps</u>, each containing not more than 100 mg of mercury, gallium or inert gas and packaged so that the quantity of mercury, gallium or inert gas per package is 1 g or less.
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The words “not restricted” and the special provision number A69 must be provided on the air waybill when an air waybill is issued.

Note.— For lamps containing dangerous goods, see Part 1:2.6.

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