



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

UN NUMBERS NOT INCLUDED IN THE LIST OF DANGEROUS GOODS

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SUMMARY

This working paper proposes to add a number of items to Table 3-1 which although assigned UN numbers and listed in the UN Model Regulations are not currently listed in the Technical Instructions

Action by the DGP: The DGP is invited to amend Table 3-1, Special Provision A123 and to add new special provisions to the Technical Instructions as shown in Appendix A to this working paper. The DGP is also invited to amend Table S-3-1 (Classes 3 to 9) of the Supplement to the Technical Instructions as shown in Appendix B to this working paper.

1. INTRODUCTION

1.1 There are a number of items of dangerous goods which, although assigned UN numbers and listed in the UN Model Regulations, are not currently listed in Table 3-1. It is believed this is because, given the nature these items, there would never be a need to transport them by air. However, for one item, UN 1327 **Hay, Straw or Bhusa**, enquiries were recently received in the United Kingdom by an operator wishing to transport large quantities for feeding race horses and the wording of the applicable special provision 281 of the UN Model Regulations suggests that carriage by air may be subject to special authorization, but there is no corresponding requirement in the Technical Instructions. A request was also received concerning the carriage of another omitted item, UN 1374 **Fish meal**. The omission of these items has also caused confusion, as it is sometimes not clear whether, by not being listed, an item is not restricted or forbidden for carriage.

1.2 During DGP-WG/12 two working papers (DGP-WG/12-WP/29 and DGP-WG/12-WP/34) were presented regarding this subject. There was strong support for adding these substances to the Technical Instructions.

1.3 While analyzing the UN numbers not listed in Table 3-1, the following was noted:

- a) most of them are unstabilized substances of Division 4.2, in Packing Group II and III and a general approach has been followed to list these as forbidden on both passenger and cargo aircraft but with Special Provision A2, so these could be carried on cargo aircraft with approval of the State of Origin and the State of the Operator.
- b) UN 1327 when not wet, damp or contaminated with oil is not dangerous and it is proposed to show this UN number with an equivalent special provision to special provision 281 of the UN Model Regulations.
- c) With UN 2216 Fish meal, fish scrap and UN 3497 Krill meal UN special provision 300 applies and these substances shall not be transported if the temperature at the time of loading exceeds certain levels. Therefore, it is proposed to also list these UN numbers as forbidden on both passenger and cargo aircraft but with Special Provision A2 assigned.
- d) For UN 3359 Fumigated transport unit the possibility exists that these units would contain small amounts of toxic gases, therefore it is proposed that these would be forbidden for transport by air under any circumstances.
- e) Batteries, nickel-metal hydride (UN 3496) are only regulated for sea transport. It is proposed to list this UN number with two new special provisions, to show under which conditions these batteries can be carried by air. This is similar to the approach for Batteries, dry with the current Special Provisions A123.

APPENDIX A

PROPOSED AMENDMENT TO PART 3 OF THE TECHNICAL INSTRUCTIONS

Part 3

DANGEROUS GOODS LIST,
 SPECIAL PROVISIONS AND
 LIMITED AND EXCEPTED QUANTITIES

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Chapter 2

ARRANGEMENT OF THE
 DANGEROUS GOODS LIST (TABLE 3-1)

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Table 3-1. Dangerous Goods List

| Name 1 | UN No. 2 | Class or division 3 | Subsidiary risk 4 | Labels 5 | State variations 6 | Special provisions 7 | UN packing group 8 | Excepted quantity 9 | Passenger aircraft | | Cargo aircraft | |
|---|-------------|------------------------|----------------------|-------------|-----------------------|-------------------------|-----------------------|------------------------|-----------------------------------|-------------------------------------|-----------------------------------|-------------------------------------|
| | | | | | | | | | Packing instruction 10 | Max. net quantity per package 11 | Packing instruction 12 | Max. net quantity per package 13 |
| <u>Hay</u> | <u>1327</u> | <u>4.1</u> | | | | <u>AXXX</u> | | | <u>See Special Provision AXXX</u> | | <u>See Special Provision AXXX</u> | |
| <u>Straw</u> | <u>1327</u> | <u>4.1</u> | | | | <u>AXXX</u> | | | <u>See Special Provision AXXX</u> | | <u>See Special Provision AXXX</u> | |
| <u>Busha</u> | <u>1327</u> | <u>4.1</u> | | | | <u>AXXX</u> | | | <u>See Special Provision AXXX</u> | | <u>See Special Provision AXXX</u> | |
| <u>Fibres, animal burnt, wet or damp</u> | <u>1372</u> | <u>4.2</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | | <u>FORBIDDEN</u> | |
| <u>Fibres, vegetable burnt, wet or damp</u> | <u>1372</u> | <u>4.2</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | | <u>FORBIDDEN</u> | |
| <u>Fish meal, unstabilized</u> | <u>1374</u> | <u>4.2</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | | <u>FORBIDDEN</u> | |
| <u>Fish scrap, unstabilized</u> | <u>1374</u> | <u>4.2</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | | <u>FORBIDDEN</u> | |
| <u>Wool waste, wet</u> | <u>1387</u> | <u>4.2</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | | <u>FORBIDDEN</u> | |

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|--|-------------|------------|--|--|--|----------------------------|--|--|--|--|
| <u>Rags, oily</u> | <u>1856</u> | <u>4.2</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | <u>FORBIDDEN</u> |
| <u>Textile waste, wet</u> | <u>1857</u> | <u>4.2</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | <u>FORBIDDEN</u> |
| <u>Krill meal</u> | <u>3497</u> | <u>4.2</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | <u>FORBIDDEN</u> |
| <u>Fish meal, stabilized</u> | <u>2216</u> | <u>9</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | <u>FORBIDDEN</u> |
| <u>Fish scrap, stabilized</u> | <u>2216</u> | <u>9</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | <u>FORBIDDEN</u> |
| <u>Fumigated cargo transport unit</u> | <u>3359</u> | <u>9</u> | | | | | | | <u>FORBIDDEN</u> | <u>FORBIDDEN</u> |
| <u>Fibres, vegetable, dry</u> | <u>3360</u> | <u>4.1</u> | | | | <u>A2</u> | | | <u>FORBIDDEN</u> | <u>FORBIDDEN</u> |
| <u>Batteries, nickel-metal hydride</u> | <u>3496</u> | <u>9</u> | | | | <u>AYYY</u> <u>AZZZ</u> | | | <u>See Special Provision AYYY and AZZZ</u> | <u>See Special Provision AYYY and AZZZ</u> |

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Chapter 3

SPECIAL PROVISIONS

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Table 3-2. Special provisions

TIs UN

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 A123

This entry applies to Batteries, electric storage, not otherwise listed in Table 3-1. Examples of such batteries are: alkali-manganese, zinc-carbon, ~~nickel-metal hydride~~ and nickel-cadmium batteries. Any electrical battery or battery-powered device, equipment or vehicle having the potential of a dangerous evolution of heat must be prepared for transport so as to prevent:

- a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
- b) unintentional activation.

The words "not restricted" and the special provision number A123 must be provided on the air waybill when an air waybill is issued.

AXXX 281

The transport by air of hay, straw or bhusa, wet, damp or contaminated with oil is forbidden unless exempted in accordance with Part 1:1.1.3.

Hay, straw and bhusa, when not wet, damp or contaminated with oil are not subject to these Instructions.

TIs UN

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AYYY Any nickel-metal hydride battery or battery-powered device, equipment or vehicle with these batteries having the potential of a dangerous evolution of heat must be prepared for transport so as to prevent:

- a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
- b) unintentional activation.

The words "not restricted" and the Special Provision number AYYY must be provided on the air waybill when an air waybill is issued.

AZZZ (117) Only regulated for sea transport, not subject to these Instructions.

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APPENDIX B

PROPOSED AMENDMENT TO THE SUPPLEMENT TO THE TECHNICAL INSTRUCTIONS

Part S-3

DANGEROUS GOODS LIST,
SPECIAL PROVISIONS AND QUANTITY LIMITATIONS

Chapter 4

SUPPLEMENTARY DANGEROUS GOODS LIST

Classes 3 to 9

Table S-3-1. Supplementary Dangerous Goods List (Classes 3 to 9)

| Name | UN No. | Class or division | Sub-sidiary risk | Labels | State variations | Special provisions | UN packing group | Excepted quantity | Passenger aircraft | | Cargo aircraft | |
|---|-------------|-------------------|------------------|-------------------------------|------------------|--------------------------|-------------------------|-------------------|---------------------|-------------------------------|---------------------|-------------------------------|
| | | | | | | | | | Packing instruction | Max. net quantity per package | Packing instruction | Max. net quantity per package |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| <u>Fibres, animal burnt, wet or damp</u> | <u>1372</u> | <u>4.2</u> | | <u>Spontaneous combustion</u> | | <u>A2</u> | <u>III</u> | | <u>FORBIDDEN</u> | | <u>471</u> | <u>(100 kg)</u> |
| <u>Fibres, vegetable burnt, wet or damp</u> | <u>1372</u> | <u>4.2</u> | | <u>Spontaneous combustion</u> | | <u>A2</u> | <u>III</u> | | <u>FORBIDDEN</u> | | <u>471</u> | <u>(100 kg)</u> |
| <u>Fish meal, unstabilized</u> | <u>1374</u> | <u>4.2</u> | | <u>Spontaneous combustion</u> | | <u>A2</u> <u>AYYY</u> | <u>II</u> | | <u>FORBIDDEN</u> | | <u>471</u> | <u>(100 kg)</u> |
| <u>Fish scrap, unstabilized</u> | <u>1374</u> | <u>4.2</u> | | <u>Spontaneous combustion</u> | | <u>A2</u> <u>AYYY</u> | <u>II</u> | | <u>FORBIDDEN</u> | | <u>471</u> | <u>(100 kg)</u> |
| <u>Wool waste, wet</u> | <u>1387</u> | <u>4.2</u> | | <u>Spontaneous combustion</u> | | <u>A2</u> | <u>III</u> | | <u>FORBIDDEN</u> | | <u>471</u> | <u>(100 kg)</u> |
| <u>Rags, oily</u> | <u>1856</u> | <u>4.2</u> | | <u>Spontaneous combustion</u> | | <u>A2</u> | | | <u>FORBIDDEN</u> | | <u>471</u> | <u>(100 kg)</u> |
| <u>Textile waste, wet</u> | <u>1857</u> | <u>4.2</u> | | <u>Spontaneous combustion</u> | | <u>A2</u> | <u>III</u> | | <u>FORBIDDEN</u> | | <u>471</u> | <u>(100 kg)</u> |
| <u>Krill meal</u> | <u>3497</u> | <u>4.2</u> | | <u>Spontaneous combustion</u> | | <u>A2</u> <u>AYYY</u> | <u>II</u> <u>III</u> | | <u>FORBIDDEN</u> | | <u>471</u> | <u>(100 kg)</u> |

| Name 1 | UN No. 2 | Class or division 3 | Sub-sidiary risk 4 | Labels 5 | State variations 6 | Special provisions 7 | UN packing group 8 | Excepted quantity 9 | Passenger aircraft | | Cargo aircraft | |
|---------------------------------------|-------------|------------------------|-----------------------|------------------------|-----------------------|-------------------------|-----------------------|------------------------|---------------------------|-------------------------------------|---------------------------|-------------------------------------|
| | | | | | | | | | Packing instruction 10 | Max. net quantity per package 11 | Packing instruction 12 | Max. net quantity per package 13 |
| <u>Fish meal, stabilized</u> | <u>2216</u> | <u>9</u> | | <u>Miscellaneous</u> | | <u>A2</u> | <u>III</u> | | <u>FORBIDDEN</u> | | <u>956</u> | <u>200 kg</u> |
| <u>Fish scrap, stabilized</u> | <u>2216</u> | <u>9</u> | | <u>Miscellaneous</u> | | <u>A2</u> | <u>III</u> | | <u>FORBIDDEN</u> | | <u>956</u> | <u>200 kg</u> |
| <u>Fibres, vegetable, dry</u> | <u>3360</u> | <u>4.1</u> | | <u>Solid flammable</u> | | <u>A2</u> <u>A48</u> | | | <u>FORBIDDEN</u> | | <u>4XX</u> | <u>[No limit]</u> |
| <u>Fumigated cargo transport unit</u> | <u>3359</u> | <u>9</u> | | | | <u>AZZZ</u> | | | <u>FORBIDDEN</u> | | <u>FORBIDDEN</u> | |

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Chapter 6

SPECIAL PROVISIONS

Supplementary special provisions

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AYYY (300) Fish meal or fish scrap must not be transported if the temperature at the time of loading exceeds 35°C or 5°C above the ambient temperature, whichever is [higher].

AZZZ Since small amounts of toxic gases may be released from a fumigated cargo transport unit, the transport of these units is forbidden under any circumstances.

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Part S-4

PACKING INSTRUCTIONS

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Chapter 6

CLASS 4 — FLAMMABLE SOLIDS; SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION; SUBSTANCES WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES

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Packing Instruction 4XX

Cargo aircraft only

Part 4, Chapter 1 requirements must be met.

| <u>UN number and proper shipping name</u> | <u>Total quantity per package — cargo</u> |
|---|---|
| <u>UN 3360 Fibres, vegetable, dry</u> | <u>[No limit]</u> |

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