



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-EIGHTH MEETING

Virtual, 15 to 19 November 2021

Agenda Item 2: Managing air-specific safety risks and identifying anomalies (Ref: REC A DGS 2023)

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 2023-2024 Edition

**PRECEDENCE OF CLASSIFICATION ENVIRONMENTALLY HAZARDOUS SUBSTANCE
VS AVIATION REGULATED SUBSTANCE**

(Presented by D. Brennan)

SUMMARY

This working paper proposes that there should be clarification that where a substance meets the classification criteria for an environmentally hazardous substance as set out in the UN Model Regulations that this takes precedence over the assignment of the substance to the entry for aviation regulated liquid or solid, UN 3334 or UN 3335, notwithstanding that the substance may have narcotic, noxious or other properties.

Action by the DGP: The DGP is invited to consider the revisions to the Technical Instructions as set out in the appendix to this working paper.

1. INTRODUCTION

1.1 This working paper is a follow on from the proposal submitted to DGP-WG/21 to clarify the precedence of classification where a substance meets the classification criteria for an environmentally hazardous substance as specified in 2.9.2 of the UN Model Regulations and is also considered by the shipper as meeting the criteria as an aviation regulated substance (see paragraph 3.2.2.2 of the DGP-WG/21 Report).

1.2 At DGP-WG/21 there was some support for the proposal, DGP-WG/21 report, paragraph 3.2.2.2 refers, although concerns were raised regarding the consideration by flight crew given the different drill code assigned to aviation regulated substances compared to environmentally hazardous

substances as well as the ability for a shipper to apply Special Provision A197 to environmentally hazardous substances, allowing the substances to be shipped as non-dangerous goods, which may not be appropriate where the substances have properties that make them aviation regulated.

1.3 Also identified during the discussion of the proposal at DGP-WG/21 is the assignment of Special Provision A97 to UN 3077 — **Environmentally hazardous substance, solid, n.o.s.** and UN 3082 — **Environmentally hazardous substance, liquid, n.o.s.** which appears to create some ambiguity on the classification of environmentally hazardous substances.

1.4 In reviewing Special Provision A97, it was identified that the wording was previously aligned to special provision 179 in the UN Model Regulations, however special provision 179 was deleted with effect the 16th revised edition of the Model Regulations and the text was incorporated into the description of environmentally hazardous substances in 2.9.2 of the Model Regulations. The text in Special Provision A97 was modified in the 2011-2012 Edition of the Technical Instructions, but the provisions were not aligned to those in the Model Regulations.

1.5 Based on the review of provisions in the UN Model Regulations and the Technical Instructions it is believed that the text in Special Provision A97 should be moved to be incorporated into the text describing environmentally hazardous substances in Table 2-16 so that there is alignment with the UN Model Regulations.

1.6 It is proposed to modify the description of environmentally hazardous substance to identify that classification as environmentally hazardous takes precedence over classification as aviation regulated. Special Provision A97 would then become “not used”.

1.7 With respect to the relaxation provided by Special Provision A197 to permit environmentally hazardous substances to be shipped as non-dangerous goods, it is proposed to amend Special Provision A197 to disapply this special provision where the substance meets the criteria for an aviation regulated substance.

1.8 A concern with respect to different drill codes where aviation regulated substances are assigned drill code “9A” compared to “9L” for environmentally hazardous substances was raised at DGP-WG/21. As was noted in the discussion at DGP-WG/21, there is nothing in the applicable packing instructions or any other provisions of the Technical Instructions that requires aviation regulated substance to be prepared, handled or loaded any differently to environmentally hazardous substances. In the event of any spill or leakage from cargo where the flight crew observe a strong odour or fumes, it would be expected that they apply the standard emergency protocols as specified by the aircraft manufacturer, regardless of any information that may or may not be on the written information to the pilot-in-command.

2. ACTION BY THE DGP

2.1 The DGP is invited to consider the revisions to the Technical Instructions as set out in the appendix to this working paper.

APPENDIX

PROPOSED AMENDMENT TO PARTS 2 AND 3 OF THE TECHNICAL INSTRUCTIONS

Part 2

CLASSIFICATION OF DANGEROUS GOODS

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Chapter 9

CLASS 9 — MISCELLANEOUS DANGEROUS
SUBSTANCES AND ARTICLES, INCLUDING
ENVIRONMENTALLY HAZARDOUS SUBSTANCES

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9.2 ASSIGNMENT TO CLASS 9

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Table 2-16. Substances and articles of Class 9

<i>UN number</i>	<i>Name</i>	<i>Notes</i>
...		
<i>Environmentally hazardous substances</i>		
3077	Environmentally hazardous substance, solid, n.o.s.	<p><u>These designations are used for substances and mixtures which are dangerous to the Environmentally hazardous substances (aquatic environment) are those that meet the criteria in 2.9.3 of the UN Model Regulations or that meet criteria in international regulations or national regulations established that do not meet the classification criteria of any other class or substance within Class 9, except for aviation regulated substances, where classification as environmentally hazardous takes precedence. These designations may also be used for wastes not otherwise subject to these Instructions but which are covered under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and for substances designated to be environmentally hazardous by the appropriate national authority in the State of Origin, transit or destination of the consignment which do not meet the criteria for an environmentally hazardous substance according to these Instructions or for any other hazard class. The criteria for substances which are dangerous to the aquatic environment are given in 2.9.3 of the UN Model Regulations.</u></p> <p>Substances or mixtures dangerous to the aquatic environment not otherwise classified under these Instructions must be assigned to Packing Group III and assigned to UN 3077 or UN 3082.</p>
3082	Environmentally hazardous substance, liquid, n.o.s.	

UN number	Name	Notes
...		
<i>Other substances or articles presenting a danger during transport, but not meeting the definitions of another class</i>		
...		
3334	Aviation regulated liquid, n.o.s.	<p>Aviation regulated liquid is any material which has narcotic, noxious or other properties such that, in the event of spillage or leakage on an aircraft, extreme annoyance or discomfort could be caused to crew members so as to prevent the correct performance of assigned duties.</p> <p><u>However, where a liquid meets the classification criteria as an environmentally hazardous substance as set out in 2.9.3 of the UN Model Regulations, then it must be assigned to UN 3082, Environmentally hazardous substance, liquid, n.o.s.</u></p>
3335	Aviation regulated solid, n.o.s.	<p>Aviation regulated solid is any material which has narcotic, noxious or other properties such that, in the event of spillage or leakage on an aircraft, extreme annoyance or discomfort could be caused to crew members so as to prevent the correct performance of assigned duties.</p> <p><u>However, where a solid meets the classification criteria as an environmentally hazardous substance as set out in 2.9.3 of the UN Model Regulations, then it must be assigned to UN 3077, Environmentally hazardous substance, solid, n.o.s.</u></p>

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Part 3

**DANGEROUS GOODS LIST,
SPECIAL PROVISIONS AND
LIMITED AND EXCEPTED QUANTITIES**

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TABLE 3-1. DANGEROUS GOODS LIST

Name	UN No.	Class or division	Subsidiary hazard	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	
...												
Environmentally hazardous substance, liquid, n.o.s.*	3082	9		Miscellaneous	DE 5 US 4	A97 A158 A197 A215	III	E1	964 Y964	450 L 30 kg G	964	450 L
Environmentally hazardous substance, solid, n.o.s.*	3077	9		Miscellaneous	DE 5 US 4	A97 A158 A179 A197 A215	III	E1	956 Y956	400 kg 30 kg G	956	400 kg

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Chapter 3

SPECIAL PROVISIONS

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Table 3-2. Special provisions

TIs	UN
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A27	(276) This includes any substance which is not covered by any of the other classes but which has narcotic, noxious or other properties such that, in the event of spillage or leakage on an aircraft, extreme annoyance or discomfort could be caused to crew members so as to prevent the correct performance of assigned duties. <u>However, where a substance meets the classification criteria as an environmentally hazardous substance as set out in 2.9.3 of the UN Model Regulations, then it must be assigned to UN 3077 or UN 3082, as appropriate.</u>
A97	These entries must be used for substances which are hazardous to the environment but do not meet the classification criteria of any other class or other substance within Class 9. This must be based on the criteria as indicated in 2.9.2 a). This designation may also be used for wastes not otherwise subject to these instructions but which are covered under the <u>Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal</u>. <u>Not used.</u>

TIs *UN*

A197 (375) These substances when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of these Instructions provided the packagings meet the general provisions of 4;1.1.1, 4;1.1.3.1 and 4;1.1.5.

This special provision does not apply where the substance meets the criteria as an aviation regulated substance.

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