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WORKING PAPER

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DANGEROUS GOODS PANEL (DGP)

THIRTIETH MEETING

Montréal, Canada, 6 to 10 October 2025

Agenda Item 10: Other business

REPORT OF THE DANGEROUS GOODS PANEL (DGP) WORKING GROUP MEETING (DGP-WG/24)

(Presented by the Secretary)

SUMMARY

This working paper presents the report of the DGP Working Group Meeting held at the International Air Transport Association (IATA) in Montréal between 21 and 25 October 2024 (DGP-WG/24).

1. INTRODUCTION

1.1 The Dangerous Goods Panel Working Group Meeting (DGP-WG/24) convened from 21 to 25 October 2024 in Montréal at the International Air Transport Association (IATA). Mr. M. Comber, Director of ICAO relations at the International Air Transport Association (IATA), opened the meeting. Mr. T. Muller chaired and Mr. L. Cascardo vice-chaired the meeting. Mr. Muller, on behalf of the working group, expressed deep appreciation to IATA for providing the excellent facilities.

2. ATTENDANCE

2.1 The meeting was attended by the following panel members, advisers and observers:

Members	Advisers	State/International Organization
S. Bitossi		Australia
L. Cascardo		Brazil
D. Sylvestre	D. Bolton L. Tellier	Canada

Members	Advisers	State/International Organization
P. Guo	H. Yixiu J. Ying	China
P. Tatin	M. Cosset	France
S. Weizenhoefer		Germany
A. Oheneba-Asare		Ghana
E. Toriello		Italy
T. Tabata	T. Kazuhide T. Okamoto I. Torii K. Yanagawa	Japan
T. Muller	E. Boon R. Dardenne T. Groffen K. Vermeersch	Netherlands
J. Finlayson		New Zealand
E. Gillett	M. Cowlshaw	Qatar
B. Ngiba		South Africa
M. A. de Castro		Spain
H. S. Almheiri	K. Al Belooshi M. Ebrahim Al Ali T. Howard A. Wagih	United Arab Emirates
M. Ranito		United Kingdom

Members	Advisers	State/International Organization
D. Pfund	M. Givens K. Leary K. Ranck	United States
B. Firkins	P. Jala	International Air Transport Association (IATA)
D. Schlichting	M. Phaneuf S. Schwartz	International Federation of Air Line Pilots' Associations (IFALPA)
Advisers		
A. Altemos G. Leach E. Wilson		Dangerous Goods Advisory Council (DGAC)
Observers		
L. Calleja Barcena		European Aviation Safety Agency (EASA)
T. Rogers		Global Express Association (GEA)
E. Remy C. Litus-Koza		North Atlantic Treaty Organization (NATO)

3. SUMMARY OF DISCUSSIONS

3.1 A summarized outcome of discussions is provided in Appendix D to this report. The report of discussions is provided in paragraph 4.

4. REPORT OF DISCUSSIONS

4.1 Agenda Item 1: Harmonizing ICAO dangerous goods provisions with UN Recommendations on the Transport of Dangerous Goods (*REC-A-DGS-2027*)

4.1.1 Agenda Item 1.1: Develop proposals, if necessary, for amendments to Annex 18 – *The Safe Transport of Dangerous Goods by Air*

4.1.1.1 There were no proposals developed under this agenda item.

4.1.2 Agenda Item 1.2: 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 2027-2028 Edition

4.1.2.1 Duplication of Definitions (DGP-WG/24-WP/5)

4.1.2.1.1 Some definitions related to explosive substances were included both with the classification criteria for explosives in Part 2;1 and in the general definitions in Part 1;3. It was proposed to delete the definitions from Part 1;3 to eliminate the potential for misalignment and to maintain alignment with the UN Model Regulations, which included the definitions with the classification criteria for explosives only. The definitions in the two sections of the Technical Instructions were identical except for an additional sentence in the definition for “explosive substance” in Part 1, which stated: “A substance which is not itself an explosive but can form an explosive atmosphere of gas, vapour, or dust is not included.” This sentence was not included in the definition contained in the UN Model Regulations.

4.1.2.1.2 While there was support for eliminating duplication, it was suggested that the duplication in this case might have been intentional. The term could apply to other substances that did not meet the criteria to be classified as a Class 1 explosive, so it needed to be included in the general definitions as well as with the classification criteria for explosives. Some suggestions were made to replace one of the instances of the definition with a cross-reference to the other. It was concluded that more time was needed to research prior decisions of the panel regarding the duplication of definitions and to determine if the inclusion of the additional statement in Part 1 was intentional and still necessary. A new proposal would be submitted to the 2025 working group meeting (DGP-WG/25).

4.1.2.2 Incorrect Reference to IBC Markings In Part 7;2.15 (DGP-WG/24-WP/13)

4.1.2.2.1 Provisions for IBC markings were moved from Part 6;2 to a new Part 6;8 in the 2017-2018 Edition of the Technical Instructions. An inaccurate reference in Part 7;2.15 to the former location was identified. An amendment to correct it was agreed as shown in Appendix B to this report. The Secretary would include the correction in a corrigendum to the 2025-2026 Edition of the Technical Instructions.

4.1.2.3 Procedures for the Classification of Explosives (DGP-WG/24-WP/18)

4.1.2.3.1 The working group discussed potential ambiguities in the classification criteria for explosives contained in Part 2;1 of the Technical Instructions in relation to: whether classification was to

be determined by the shipper or an appropriate national authority; who needed to provide information concerning classification; and to whom the information needed to be provided.

4.1.2.3.2 With regard to who determined classification, several provisions in the classification criteria implied that classification needed to be conducted, approved or agreed by the competent authority, but there were no explicit requirements on this contained in the Technical Instructions, the UN Model Regulations or any of the specific modal regulations other than the International Maritime Dangerous Goods (IMDG) Code. The IMDG code had a requirement for classification to be approval by the competent authority of the country of manufacture.

4.1.2.3.3 With regards to classification information, there were concerns that without access to adequate information, permitted packagings might not be readily identifiable to manufacturers and subsequent distributors of the explosives regardless of who made the classification. This was a particular concern for explosives, given the impact the type of packaging had on classification.

4.1.2.3.4 Some members had not been aware of any issues with the classification criteria and were concerned that revisions to the provisions might have unintended consequences. There was general support for continued discussion on the topic and closing any safety gaps. Interested members would work with the author of the working paper to confirm any safety gaps and to provide any needed clarifications.

4.1.2.4 **Proposed Amendment to Special Provision A214 to include Nickel Metal Hydride Batteries (DGP-WG/24-WP/19)**

4.1.2.4.1 The working group was asked for feedback on a proposal submitted to the sixty-fifth session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods (subsequently referred to as “UN Sub-Committee” in this report) (Geneva, 28 November to 3 December 2024) to include a reference to nickel-metal hydride batteries in special provision 388 of the UN Model Regulations. The equivalent special provision in the Technical Instructions was A214. It included classification criteria for hybrid vehicles assigned to UN 3166 (flammable liquid or gas powered vehicles and flammable gas or liquid fuel cell powered vehicles) and vehicles powered by batteries other than lithium ion, lithium metal or sodium ion assigned to UN 3171 (battery-powered equipment or vehicles). It referenced several different battery types, but not nickel-metal hydride. The proposal to the UN Sub-Committee suggested the absence of such a reference could lead to problems with acceptance. A proposal to amend Special Provision A214 would be submitted to the DGP working group meeting in 2025 (DGP-WG/25) based on the outcome of the discussions at the UN Sub-Committee.

4.1.2.4.2 While there were no objections to adding the references to nickel-metal hydride batteries in principle, it was questioned whether it was necessary for them to be included with vehicles or equipment assigned to UN 3171 when powered only by nickel-metal hydride batteries, given that the UN Model Regulations made these batteries subject to regulation only when transported by sea. A revision to the proposal for the UN Sub-Committee was made to include the reference to nickel-metal hydride batteries only within the examples of vehicles that would be assigned to UN 3166.

4.1.2.4.3 The Technical Instructions made nickel-metal hydride batteries subject only to Special Provision A199. It was suggested during discussions that consideration be given to assigning Special Provision A199 to UN 3171 – **Battery-powered equipment** and **Battery-powered vehicle**. While there were no objections to this, DGP-WG/24 wanted more time to think about it given that it wasn’t part of the proposal. The proposed amendment is shown in Appendix B to this report in square brackets.

4.1.2.5 Special Provision A214 – Equipment Containing Sodium Ion Batteries (DGP-WG/24-WP/22)

4.1.2.5.1 Special Provision A214 included a requirement for equipment powered by lithium metal or lithium ion batteries to be assigned to the entries for lithium metal or lithium ion batteries packed with or contained in equipment (UN 3091 or UN 3481). The meeting agreed to extend this requirement to sodium ion batteries packed with or contained in equipment, as shown in Appendix B to this report). The secretary was requested to propose the same amendment to the corresponding special provision in the UN Model Regulations to the UN Sub-Committee if it had not already been proposed for inclusion there. This would be verified by the Secretary in coordination with panel members attending the UN Sub-Committee.

4.1.3 Agenda Item 1.3: Develop proposals, if necessary, for amendments to the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284SU) for incorporation in the 2027-2028 Edition

4.1.3.1 There were no proposals developed under this agenda item.

4.2 Agenda Item 2: Managing air-specific safety risks and identifying anomalies (REC-A-DGS-2027)

4.2.1 Agenda Item 2.1: Develop proposals, if necessary, for amendments to Annex 18 – *The Safe Transport of Dangerous Goods by Air*

4.2.1.1 Proposed Amendment to the Specifications in Annex 18 and the Technical Instructions Requiring the Operator to Provide Information to Emergency Services and States Concerned in the Event of an Aircraft Accident or Incident (DGP-WG/24-WP/17)

4.2.1.1.1 Annex 18 required, in the event of an aircraft accident or incident, the operator to provide information about dangerous goods on board the aircraft as shown in the written information to the pilot-in-command to:

- a) emergency services responding to the aircraft accident or incident:
 - 1) without delay in the event of an accident or serious incident where dangerous goods carried as cargo may be involved; and
 - 2) without delay in the event of an incident on an aircraft carrying dangerous goods as cargo, if requested to do so;
- b) the appropriate authority of the State of the Operator, as soon as possible, in the event of an accident or serious incident where dangerous goods carried as cargo may be involved; and
- c) the appropriate authority of the State of occurrence:
 - 1) as soon as possible in the event of an accident or serious incident; and

- 2) without delay in the event of an incident on an aircraft carrying dangerous goods as cargo, if requested to do so.

The Technical Instructions contained the same requirements, although structured differently.

4.2.1.1.2 The amendment was intended to achieve the following two objectives:

- a) to clarify who the intended recipients of the information were by separating the requirement for emergency responders from the one for the States into two separate paragraphs; and
- b) to make it easier and quicker for the operator to determine who to provide the information to and when to provide it by replacing whether the occurrence was an accident, serious incident, or incident as a triggering event with whether emergency services were responding to the occurrence.

4.2.1.1.3 There was support for separating the provisions for providing information to emergency responders from those providing information to a State. While there were no objections to clarifying how to determine who the information needed to be sent to and when it needed to be sent, care was needed to ensure the original intent of the proposal was maintained. In this regard, coordination with accident investigation experts would be necessary before the panel could agree to an amendment. DGP-WG/Annex 18 would further consider the amendment proposal, given the feedback provided.

4.2.2 Agenda Item 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 2027-2028 Edition

4.2.2.1 Report of the ICAO DGP Working Group on Training (DGP-WG/24-WP/26)

4.2.2.1.1 A report of the activities of the DGP Working Group on Training (DGP-WG/Training) was provided to the meeting. DGP-WG/Training had focused on two areas since the twenty-ninth meeting of the DGP (DGP/29, 13 to 17 November 2023).

4.2.2.1.2 The first was a review of proposed amendments to Annex 18 (see Agenda item 5 to this report). DGP-WG/Annex 18 revised the draft amendment to the training chapter in Annex 18 based on feedback from this review.

4.2.2.1.3 The second was an evaluation of the effectiveness of *Guidance on a Competency-based Approach to Dangerous Goods Training and Assessment* (Doc 10147) at assisting industry in implementing competency-based training and assessment for dangerous goods and at assisting States overseeing dangerous goods training programmes. The evaluation was based on experience gained by members, observers and advisers from various States and international organizations in implementing training provisions in the Technical Instructions that became mandatory in 2023, after a two-year transition period, which Doc 10147 supported. DGP-WG/Training concluded that the guidance material was overly theoretical and challenging to understand, thereby complicating practical implementation. Moreover, several examples included in the document did not align with real-world situations. DGP-WG/Training also identified a potential need for improvement of the training provisions in Part 1;4 of the Technical Instructions to promote more consistent implementation of the provisions.

4.2.2.1.4 There was general support for simplifying the guidance document by making it less theoretical and more practical. However, there were some concerns that the guidance material was being perceived as a requirement for implementation of the training provisions in the Technical Instructions, when this was never the intent. It contained a methodology that could be used to ensure personnel were competent to perform any function for which they were responsible, but it wasn't intended to exclude other methodologies that would achieve the same intent. DGP-WG/24 agreed that the focus of any work to improve the document would be on simplifying the material and correcting identified errors to make it more usable. It was not to make the guidance any more prescriptive.

4.2.2.1.5 Some members cautioned against any modifications to Part 1;4. The panel's resources were limited, and several items on its work programme were given a high priority. There was a view that revisions to Part 1;4 should not be considered unless there was a clear problem that could only be addressed through regulation. A concern with the increasingly complex supply chain and the risk that some entities within it might lack awareness of the required training was highlighted. DGP-WG/Training could take this risk into account, though there was uncertainty about whether it could be mitigated through regulatory measures in Part 1;4.

4.2.2.1.6 DGP-WG/24 supported the development of a job card with a clear problem statement. DGP-WG/Training would be tasked with developing recommendations to address the approved elements on the job card. The job card would be developed by DGP-WG/Training in coordination with the Secretary and submitted to the panel through correspondence for endorsement before seeking ANC approval.

4.2.2.2 Separation of Explosive Substances and Articles (DGP-WG/24-WP/2)

4.2.2.2.1 A discrepancy between the Technical Instructions and the Supplement was identified with respect to the tables identifying explosive substances and articles required to be separated during transport (Table 7-2 in the Technical Instructions and S-7-1 in the Supplement). Explosives of compatibility groups C, D and E could be loaded together with those of compatibility group G in the Technical Instructions, while in the Supplement separation was required. It was agreed that they should be separated and that the Technical Instructions should be amended. This was consistent with the criteria for separation of explosives provided in the UN Model Regulations. An amendment to Table 7-2 was agreed, as shown in Appendix B to this report. The Secretary would include the correction in a corrigendum to the 2025-2026 Edition of the Technical Instructions.

4.2.2.3 Incorrect Reference for Radioactive Material Packages and Loading Location on NOTOC (DGP-WG/24-WP/14)

4.2.2.3.1 An amendment to correct an inaccurate reference in Part 7;4.1.1.1 f), as shown in Appendix B to this report, was agreed.

4.2.2.4 Clarification of a ULD with Fire Detection/Suppression System (DGP-WG/24-WP/21)

4.2.2.4.1 The working group was invited to discuss potential ambiguity with respect to the criteria in Part 7;2.4.1.1 b) for packages or overpacks of dangerous goods with a cargo aircraft only label to meet the fire detection/suppression system standards of a Class C aircraft cargo compartment. It was also invited to discuss whether more specific criteria should be added to aid operators, ULD manufacturers and regulators with determining whether the ULD could meet the objective of the requirement. Specific questions raised included:

- a) whether the oblique in the reference to “fire detection/suppression” was to be interpreted to be an “and” or an “or”;
- b) whether a fire containment cover designed with a complementary pallet and another type of fire detection/suppression system would meet the objective of the requirement; and
- c) whether the requirement to include “Class C compartment” on the ULD tag was too prescriptive, or if something more performance-based would be more effective to achieve the objective, which was assumed to be advising employees that the ULD contained an active fire suppression.

4.2.2.4.2 The meeting agreed that a review of all the provisions for loading of cargo aircraft with dangerous goods forbidden on a passenger aircraft in Part 7;2.4.1 was needed to ensure they were clear and that the underlying assumptions on which they were based remained valid. The panel added the provision for a ULD meeting the certification requirements of a Class C aircraft cargo compartment in anticipation of such a ULD being developed. An evaluation of how such a ULD might impact the safety features of a certified cargo compartment and whether this might invalidate the assumptions underlining the certification of the compartment had never been made. DGP-WG/24 was unaware of any ULD’s that met the certification requirements of Class C cargo compartment, but minimum performance standards for fire resistant ULDs and fire containment covers were under development by other standard making organizations.

4.2.2.4.3 The meeting agreed that work should be undertaken to review and update the provisions. A job card would be developed by those interested in coordination with the Secretary and sent to the panel through correspondence for endorsement before seeking ANC approval. A job card developed by the twenty-sixth meeting of the Dangerous Goods Panel (DGP/26, 16 to 27 October 2017) (Recommendation 2/4) related to the accessibility of dangerous goods permitted only on cargo aircraft in Part 7;2.4.1.1 c) would be considered when developing the new job card, given that accessibility was an alternative to a ULD meeting Class C cargo compartment certification. The job card recommended by DGP/26 was never published, as it was assumed the tasks on it would be circuitously addressed through a job card assigned to the Airworthiness Panel (AIRP). However, questions on the intent of the provisions and how they should be implemented remained.

4.2.2.5 **NOTOC Requirements – Sodium Ion Batteries (DGP-WG/24-WP/24)**

4.2.2.5.1 Part 7;4.1.3 reduced the amount of information required to be provided to the pilot-in-command for lithium metal and lithium ion batteries. A proposal to extend this to sodium ion batteries, as shown in Appendix B to this report, was agreed. Including the amendment in a corrigendum to the Technical Instructions was suggested. The Secretary advised that an addendum, which was subject to Council approval, was needed for such a change. Corrigenda were published to correct errors, and this amendment was needed to address what DGP-WG/24 considered to be an oversight, not an error.

4.2.3 **Agenda Item 2.3: Develop proposals, if necessary, for amendments to the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284SU) for incorporation in the 2027-2028 Edition**

4.2.3.1 There were no proposals developed under this agenda item.

4.2.4 Agenda Item 2.4: Development of proposals, if necessary, for amendments to the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481) for incorporation in the 2027-2028 Edition

4.2.4.1 Cargo Compartment Classification (DGP-WG/24-WP/23)

4.2.4.1.1 The cargo compartment classifications in Section 1.1 of the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481) were based on the United States Federal Aviation Regulations (FAR 25.857) and the European Joint Aviation Regulations (JAR 25.857). However, there were parts in Section 1.1 of Doc 9481 that no longer aligned with these regulations. The working group was invited to consider whether the material in Doc 9481 should be amended to align with FAR 25.857 and JAR 25.857, or if the material in Doc 9481 should be replaced with references to these regulations and guiding principles that operators should consider when determining what could be loaded in a specific cargo compartment.

4.2.4.1.2 Some members supported deleting the classifications from Doc 9481, while others preferred not deleting them as they facilitated use of the document, particularly for those who may not have access to the American or European regulations. References to the classifications in Doc 9481 were included in other parts of the documents and in other documents, so more consideration would be needed before deleting them. It was noted that the classifications were also included in *Guidance for Safe Operations Involving Aeroplane Cargo Compartments* (Doc 10102). They were provided in that document to support cargo compartment safety Standards in Annex 6, which included a requirement for cargo compartments to be considered as part of the operator's specific safety risk assessment.

4.2.4.1.3 DGP-WG/24 agreed that more thought on the issue was needed. The Flight Operations Panel Safe Carriage of Goods Specific Working Group (FLTOSP-SCGSWG) was reviewing Doc 9481 holistically as part of work to incorporate updated cabin crew emergency response procedures in Section 3 of the document. Members and advisers who supported both the DGP and FLTOSP-SCGSWG offered to take on this task as part of its holistic review. Non-participants of the specific working group were invited to join if they wished.

4.3 Agenda Item 3: Facilitating safe transport of dangerous goods by air (Ref: REC-A-DGS-2027)

4.3.1 Clarification of the Exceptions for Carriage of Medical Devices and Batteries for Personal Use (DGP-WG/24-WP/1)

4.3.1.1 The passenger provisions prohibited carriage of dangerous goods unless they were permitted in accordance with Table 8-1 and they were for personal use. DGP/29 was asked to consider an exception from the requirement that they be for personal use for medical specialists carrying portable electronic medical devices containing lithium metal or lithium ion cells and batteries and spare batteries when required for imminent patient care. Life-saving medical devices sometimes needed to get to a patient urgently, and hand carrying was sometimes necessary to ensure the device was not damaged during cargo transport. There was a concern that the term "personal use" might not be interpreted consistently among operators, and some operators might not permit carriage of such devices. An exception could prevent this from happening. There was no formal proposal presented at DGP/29, but panel members were open to discussing the issue over the next biennium.

4.3.1.2 DGP-WG/24 was invited to explore ways medical professionals could carry medical devices for urgent medical care. The original discussion at DGP/29 focused on including a provision in the passenger and crew provisions in Part 8, but including an exception in the general exceptions of Part 1;1.1.5 was suggested as an alternative approach. Members were sympathetic to the intent, but there was some reluctance to introducing exceptions to the provisions for specific items, fearing there would be continuous requests to add more items. They also emphasized the need to base what was permitted on safety and not end use. Several questioned whether there really was a problem, suggesting medical devices could be considered necessary for personal use if carried by a medical specialist. There was general agreement that a medical specialist should be able to carry the devices, provided they were not carrying multiple devices for commercial or sales purposes. The working group supported the development of guidance material to assist operators with consistent implementation of the provisions without compromising this principle. This would be developed for consideration at the 2025 working group meeting.

4.3.2 **New Special Provision for UN 1544 – Alkaloids, Solid, n.o.s. or Alkaloid Salts, Solid, n.o.s. (DGP-WG/24-WP/4)**

4.3.2.1 The Technical Instructions provided an exception from the requirement for generic or not otherwise specified (n.o.s.) proper shipping names to be supplemented with a technical or chemical group name for controlled substances when a national law or international convention prohibited their disclosure. There was no requirement to indicate on the dangerous good transport that this exception was applied. It was suggested that this could lead to delays during acceptance. A new special provision was proposed for assignment to UN 1544 – **Alkaloids, solid, n.o.s.*** and UN 1544 – **Alkaloid salts, solid, n.o.s.*** reproducing the exception and requiring that transport in accordance with it be noted on the dangerous goods transport document. An amendment to 5;4.1.5.8.1 b) was also proposed to ensure the new special provision was included in the list of special provisions that needed to be noted on the dangerous goods transport document.

4.3.2.2 There were some who supported introducing the new special provision if it aided acceptance staff, although it was questioned whether it should be assigned to other dangerous goods. Others did not believe the special provision was necessary, as it was a duplication of an existing provision. They were content with the existing provision and believed facilitating the acceptance of these substances should be addressed through training. Adding a statement on the transport document was not supported. There were concerns that a statement would draw attention to the shipment, contradicting the intent of omitting the technical name. It would also introduce an additional burden on the shipper. The proposal was not accepted. The proposer would consider a revised proposal based on the feedback provided.

4.3.3 **New Requirement for Combination Packagings Having Inner Packaging Containing Liquid Dangerous Goods (DGP-WG/24-WP/7)**

4.3.3.1 Part 4;1.1.13 provided an exception from the requirement for package orientation labels under certain conditions. A new requirement for the shipper to indicate that the orientation arrows were not required on the package was proposed for inclusion under the exception in Part 4;1.1.13. This was considered necessary to avoid delays at acceptance.

4.3.3.2 The proposal was not supported. Members felt that the issues highlighted were not a safety concern nor were they an indication of significant problems requiring a solution. There was little justification for adding the requirement given the additional burden it would place on the shipper. The proposal was withdrawn.

4.3.4 Inclusion of Blood and Blood Components Under the General Exceptions (DGP-WG/24-WP/10)

4.3.4.1 An amendment to the exception from the Technical Instructions for dangerous goods needed to preserve tissues or organs intended for transplantation, to include blood and blood components for a transfusion was proposed (Part 1;1.1.5.1 a)). The need for the amendment was prompted by the emergence of battery-powered refrigerators designed specifically to carry blood and blood components that were being used on air ambulances.

4.3.4.2 The amendment was supported in principle, although there were suggestions to make the list of items more general and intent-based to reduce the need for additional items in the future. The meeting was content with accepting the original proposal, subject to editorial revisions to align the list of items with the exceptions in 2;6.3.2.3.7. The decision could be revisited at the next working group meeting if an updated proposal making the list more general and intent-based was to be presented. The proposal, as amended and shown in Appendix B to this report, was agreed.

4.3.5 Pressure Differential Requirements Applicable to Packagings Containing Radioactive Material (DGP-WG/24-WP/11)

4.3.5.1 Amendments to the Technical Instructions and its Supplement were proposed that were based on material developed at the 2017 DGP Working Group Meeting (DGP-WG/17, 24 to 28 April 2017) (see paragraph 3.2.6.2 of the DGP-WG/17 Report). The material was presented to the 34th meeting of the International Atomic Energy Agency (IAEA) Transport Safety Standards Committee (TRANSSC) subsequent to DGP-WG/17 for feedback. TRANSSC-34 did not object to the material developed by DGP, but a formal proposal to include the material in the Technical Instructions and its Supplement was never submitted.

4.3.5.2 The amendments pertained to Part 6;7.2.3 of the Technical Instructions which required all packages containing radioactive material to be capable of withstanding an internal pressure that produced a pressure differential of not less than maximum normal operating pressure, plus 95 kPa, without loss or dispersal of radioactive contents from the containment system. It applied to all forms of radioactive material within the package. Some types of packaging made compliance with the requirement impossible to achieve, and there was a view that the requirement might have been excessively severe for low activity materials with little risk in the event of dispersion. A joint DGP/IAEA working group reviewed the provisions prior to DGP-WG/17 and concluded that a package design would meet the requirement of Part 6;7.2.3 if the pressure differential was not maintained due to leakage of air, provided there was no loss or dispersal of radioactive material. The IAEA developed provisions allowing for demonstrated compliance by means other than differential pressure testing for packages containing solid radioactive material, along with guidance on the provision.

4.3.5.3 DGP-WG/24 was invited to consider adding a note under Part 6;7.2.3 of the Technical Instructions to clarify how the requirement could be achieved and guidance material for the Supplement. Two options for the note were proposed. One was the note developed at DGP-WG/17, which explained the intent of the requirement, and the other was a note specifying that means other than pressure resistance could be used to demonstrate compliance for solid material. The majority preferred the first option, but there was also support for the second given that it more explicitly explained that an alternate means of compliance was acceptable, and it limited this to solids.

4.3.5.4 There was general support for introducing the guidance material, but part of it needed improvement based on last minute comments received from authorities involved with Class 7, and more consideration needed to be given on where it should be located. The working group did not consider the

Supplement to be the most effective location, given that the material was directed at shippers and not States. A website might be the most effective location.

4.3.5.5 More consideration would be given to the content of the note, the guidance material, and where the guidance material should be located. A new proposal would be submitted to the 2025 working group meeting.

4.3.6 Packing Instructions for Articles Containing Dangerous Goods UN 3537, UN 3538, UN 3540, UN 3541, UN 3546, UN 3547 & UN 3548 (DGP-WG/24-WP/15)

4.3.6.1 Packing instructions contained in the Supplement for articles containing dangerous goods (Packing Instructions 221, 379, 400, 600, 877 and 973) contained provisions that made them applicable only to dangerous goods permitted under the limited quantity provisions in Part 3;4.1.2 of the Technical Instructions. A proposal to remove this limitation was proposed, suggesting it was inconsistent with classification and identification criteria in Part 2;0.6 and did not align with the packing instruction assigned to these dangerous goods in the UN Model Regulations (P006). The proposed amendment also corrected an error with respect to the packing instruction number assigned to UN 3540 in Table S-3-1 of the Supplement. The amendment, as shown in Appendix C to this report, was agreed.

4.3.7 Transport of Illicit Substances Under Chain of Custody by Law Enforcement Agencies (DGP-WG/24-WP/16)

4.3.7.1 The meeting continued discussions initiated at DGP/29 regarding challenges addressing requests from law enforcement agencies to transport illicit substances that might be classified as dangerous goods for initial laboratory testing or as evidence for prosecution while maintaining a chain of custody (see paragraph 11.4 of the DGP/29 report). An amendment to the Technical Instructions was proposed based on feedback from DGP/29 which aimed to facilitate the carriage of such substances by law enforcement agencies under their chain of command. The amendment included a new entry in Table 8-2 that referred to a new special provision assigned to UN 3315 – **Chemical sample, toxic** and outlined the conditions under which the illicit substances could be carried.

4.3.7.2 Several members expressed support for the intent of the proposal, highlighting similar challenges in their own States. The amendment, however, could not be accepted as presented. Issues raised included:

- a) UN 3315 had another special provision assigned to it which limited its use to samples of chemicals taken for analysis in connection with the implementation of the Chemical Weapons Convention, thereby preventing its application for illicit substances;
- b) Some of the terminology used, such as “law enforcement officer” and “chain of command”, could be interpreted differently among States and could unintentionally limit or expand the intended scope;
- c) There was a conflict in the proposed amendment whereby the special provision limited carriage to the cabin of a passenger aircraft while Table 8-2 allowed carriage in both checked and carry-on baggage;
- d) Whether the provision needed to apply to both solids and liquids and for both analysis and evidentiary purposes should be considered;

- e) Assigning the provision to a generic entry made the scope of application too broad, applying it to more specific entries to limit its application to what was necessary would be more appropriate.
- f) Care had to be taken to ensure safe quantity limits and packagings to mitigate unacceptable risk in the cabin.
- g) Including all the provisions in Table 8-2 would simplify implementation.

4.3.7.3 A revised proposal would be developed for consideration at the 2025 working group meeting based on feedback provided.

4.3.8 **Guidance on the Development of State Variations (DGP-WG/24-WP/20)**

4.3.8.1 The working group was invited to consider developing high-level guidance to assist States when filing variations to the Technical Instructions, with the objective of ensuring they were clear, unambiguous and practical to implement. Though there was support, members emphasized the importance of avoiding any impression of infringing on a State's right to publish variations as they choose. Several members offered support in the drafting of the guidance material.

4.3.9 **Special Provision A211 (DGP-WG/24-WP/31)**

4.3.9.1 The meeting was invited to consider whether mass limits per receptacle should be applied to UN 1067 – **Nitrogen dioxide** and UN 1660 – **Nitric oxide, compressed** when shipping the gases in accordance with Special Provision A211. The special provision limited the water capacity of the receptacles or gas cartridges by volume, and some shippers and operators were confused because gases were limited by mass in kilograms in Table 3-1 and the associated packing instructions. The meeting did not see the issue raised as a problem. The water capacity limits in volume made it unnecessary to provide mass limits for the gas. The special provision was created to allow very small quantities of specific gases to be transported by air which were normally forbidden for transport. The limits permitted were significantly lower than what was normally permitted in receptacles and gas cartridges. The meeting agreed there was no further action needed.

4.3.10 **Transport of Fuels by air in Containers With a Capacity Greater than Provided for in the ICAO Technical Instructions (DGP-WG/24-IP/4)**

4.3.10.1 A proposal was submitted to ICAO's Fourteenth Air Navigation Conference (Montréal, 26 August to 6 September 2024) by a State seeking to transport fuels by air in containers of greater capacity than what was permitted in the Technical Instructions (AN-Conf/14-WP/144). The State was advised that it would be forwarded to the DGP for consideration, given that it was an issue within the scope of the panel's terms of reference.

4.3.10.2 DGP-WG/24 was invited to provide feedback on the issue raised. A formal working paper would be presented to the 2025 DGP Working Group meeting, if deemed necessary, based on the feedback provided.

4.3.10.3 Members were not supportive of including provisions in the Technical Instructions for the containers because of the many safety considerations that would need to be considered. They noted that these containers were used through the exemption process. Other members advised of similar challenges within their States and expressed a desire for a suitable standard that could be used to ease the

exemption process. One panel member noted that guidance had been developed in a State in his region, but the technical specifications were still being evaluated and assessed. He would monitor the progress and bring the material to the panel once it had been successfully evaluated.

4.4 Agenda Item 4: Managing safety risks posed by the carriage of lithium batteries by air (Ref: Job Card DGP.003.05)

4.4.1 Implementation of the SAE Performance-Based Packaging Standard for Lithium Batteries (DGP-WG/24-WP/3)

4.4.1.1 The SAE G27 committee tasked with developing a performance-based package standard for transporting lithium batteries as cargo on aircraft had recently approved a standard aimed at demonstrating that a package of lithium-ion cylindrical cells of a format of 21700 or smaller could contain the potential hazardous effects to the aircraft resulting from the failure of a cell within the package. The committee also approved a companion document that provided detailed background, rationale and calculations used in the standard. The meeting was advised that there remained elements for which consensus had not been reached, but a majority of members of the SAE were content to approve the overall standard. It was approved with the understanding that it was not ready to be implemented into regulation and the hope that a published version would provide ICAO's expert bodies with the opportunity to review it and consider how it could be implemented. Feedback would help guide the committee as it continued to improve the standard. The committee also recognized that use of the standard would be limited based on its narrow scope, but validating a broader scope and achieving consensus was complex and time consuming. It had begun work on broadening the scope to different types, sizes and forms of batteries and cells and expected this would be a much faster process now that the narrow scope version was complete.

4.4.1.2 DGP-WG/24 was invited to provide feedback for onward submission to the G27 Lithium Battery Packaging Performance Committee on how it might be used and to suggest potential additions to the standard to improve its useability. However, the amount of feedback the working group could provide was limited, because not all participants had access to the standard. The working group did have a general view that the standard might be useful as guidance to States when issuing approvals, but it did not see it as something that would allow for the removal of the prohibition on the transport of lithium batteries on passenger aircraft.

4.4.1.3 Participants voiced dissatisfaction that SAE did not allow the standard to be shared with the DGP, pointing out that other organizations' standards were freely available to all participants at the UN Sub-Committee with the caveat that they could not be distributed beyond the committee. The Secretary advised that SAE staff recommended regulators seek access through their government agencies or by purchasing it, and that further information could be obtained through SAE customer service.

4.4.2 Lithium Battery(ies) that Remain Installed in Mobility Aids (DGP-WG/24-WP/8), Safety Concerns with Lithium Battery Powered Mobility Devices (DGP-WG/24-WP/28) and Lithium Battery(ies) that Remain Installed in Mobility Aids (DGP-WG/24-IP/5)

4.4.2.1 The working group was invited to discuss safety challenges with respect to mobility aids powered by lithium ion batteries. The Technical Instructions imposed a Watt-hour rating limit of 300 Wh for batteries removed from the mobility aid, but no limit for those installed and protected in the mobility aid. Advances in battery technology was allowing higher-capacity batteries to be integrated into the mobility aids, and members saw this as a significant safety risk. Operators had a responsibility to address the risk associated with mobility aids through their safety management system, but it was a challenge for

them to balance the accessibility rights of passengers with restricted mobility and the need to ensure the safety of the aircraft and those onboard. An operator denying the transport of a mobility aid because of the safety risk could lead to significant reputational, financial and legal consequences. It also presented challenges to passengers with reduced mobility, who were subject to different policies from different operators.

4.4.2.2 Information from industry that highlighted the challenges faced by all operators was presented to the meeting, i.e.:

- a) There was a vast array of “mobility” aids available, some intended for a market beyond persons with restricted mobility. It was a challenge to differentiate between passengers whose mobility was legitimately restricted and those wanting to carry aids for leisure purposes.
- b) It was estimated that most lithium-ion battery powered mobility devices carried by passengers had a Watt-hour rating of less than 300 Wh. However, operators were concerned that the proportion of devices powered by batteries greater than 300 Wh would increase if there was no regulatory limit on what could be carried. Operators had seen mobility aids powered by batteries with Watt-hour ratings of 1440 Wh.
- c) Operators observed an increase in instances where manual wheelchairs were being transformed into electric-powered ones by attaching batteries to them. The batteries attached were often large, and the integration of them into devices they were not designed for posed an additional safety risk.
- d) The Technical Instructions required batteries removed from the mobility aid to be carried in the cabin under the assumption that this would facilitate emergency response. However, some operators had invested in fire resistant containers for cargo compartments and had assessed that the batteries would be safer in them. There were concerns that existing emergency response procedures for thermal runaway incidents in the cabin might not be adequate for handling larger batteries permitted for mobility aids.
- e) Some of the safety measures required by the Technical Instructions, such as only allowing batteries that passed UN 38.3 testing, were not always realistic to implement since it might be impossible for anyone other than the battery manufacturer to determine this.
- f) Operators were concerned that the same level of safety required to transport lithium ion batteries transported as cargo was not required for lithium ion batteries used to power mobility aids carried by passengers, i.e. lithium ion batteries were forbidden for transport as cargo on passenger aircraft unless they were packed with or contained in equipment and were subject to mass and state of charge limits for transport as cargo on cargo aircraft, while there were no such limits for batteries used to power mobility aids when carried by passengers.

4.4.2.3 The working group acknowledged the challenges faced by operators and agreed that measures were needed to ensure they could be carried safely and consistently. An ad hoc working group supported by relevant experts would consider ways of improving the existing regulatory framework and developing guidance material to assist operators. Recommendations would be developed for endorsement at the panel’s thirtieth meeting in the fall of 2025.

4.4.3 **Exceptions – Data Loggers (DGP-WG/24-WP/12)**

4.4.3.1 The working group agreed to extend an exception from the Technical Instructions for data loggers and cargo tracking devices powered by lithium batteries that was added to Part 1;1.1.5.1 of the 2025-2026 Edition to data loggers and cargo tracking devices powered by sodium ion batteries (see Appendix B to this report. The secretary was requested to advise the UN Sub-Committee of the amendment, noting that it was based on an exception in 5.5.4 of the UN Model Regulations.

4.4.4 **Guidance for Issuing Approvals for the Transport of Cells and Batteries (DGP-WG/24-WP/25)**

4.4.4.1 Guidance material to assist States in considering the granting of approvals to transport lithium-ion batteries at higher states of charge was incorporated in the 2025-2026 Edition of the Supplement. The Air Navigation Commission requested the panel to develop the material during its review of the DGP/29 Report through ANC job card DGP.003.05: Mitigating safety risks posed by the carriage of lithium batteries by air. The material was developed by the DGP Working Group on Electronic Storage Devices (DGP-WG/ESD) and endorsed by panel members through correspondence. Members of DGP-WG/ESD suggested additions to the guidance material that would go beyond issuing approvals for transport at higher states of charge, but time constraints prevented the group from considering them for incorporation in the 2025-2026 Edition. DGP-WG/24 requested DGP-WG/ESD to consider the need to expand the guidance based on experience gained. A report of the review would be presented to the DGP 2025 working group meeting.

4.4.5 **Sodium Ion Batteries in the Post (DGP-WG/24-WP/27)**

4.4.5.1 The meeting was invited to discuss the potential for sodium ion batteries contained in equipment to be introduced into airmail, noting the possibility of the UPU wanting to amend its convention to allow this. Some members cautioned against efforts to allow them in the airmail, noting that lithium batteries contained in equipment were the sole exception from the prohibition on dangerous goods in mail added for commercial reasons; all others were added to address health or humanitarian needs. It was questioned whether the UPU was even aware of these batteries. The meeting agreed that engagement with the organization was necessary to at least raise awareness of the likely commercialization of these batteries and the need for measures to be in place to control their introduction in the post. The Secretary was asked to engage with the UPU in coordination with IATA through the organizations' respective contact committees. The next meeting of the ICAO/UPU Contact Committee Meeting was scheduled for June 2025. A request would be made to add the topic to that meeting's agenda.

4.4.6 **Scope of Application for Sections IA of Packing Instructions 965 and 968 (DGP-WG/24-WP/30)**

4.4.6.1 The introductory section of the packing instructions for UN 3480 – **Lithium ion batteries** (Packing Instruction 965) and UN 3090 – **Lithium metal batteries** (Packing Instruction 968) described the applicability of the packing instructions' two main sections (Sections IA and IB) based on the Watt-hour rating for UN 3480 and the lithium metal content for UN 3090. Section IB established lower net quantity per package limits than Section IA. It was reported that not all shippers understood that Section IA could be used if the Section IB net quantity limits were exceeded, even if the Watt-hour rating or lithium metal content were within the Section IB limits. An amendment was therefore proposed to specify that Section IA also applied to lithium cells or batteries that exceeded the net quantity per package limits established in Section IB.

4.4.6.2 There was some support for the proposal, but others cautioned against it on the basis that specifying that dangerous goods could be shipped fully regulated if the criteria for an exception could not be met was not done anywhere else in the Technical Instructions. This was a general principle that applied to all exceptions. Although there was interest in removing ambiguity that might contribute to shippers misunderstanding the intent of the provision, the proposal did not receive sufficient support. Those interested would work on alternate wording for consideration at the DGP 2025 working group meeting.

4.4.7 **Progress on Efforts to Relax Transport Regulations for All-Solid-State Batteries at the UN Sub-Committee (DGP-WG/24-IP/2)**

4.4.7.1 DGP-WG/24 was provided an update on efforts to relax transport regulations for all solid-state batteries at the UN Sub-Committee. The 2023 DGP Working Group Meeting (15 to 19 May 2023, Rio de Janeiro) was provided with data from propagation tests on solid-state lithium ion batteries based on a hazard-based classification test protocol the UN Sub-Committee's Informal Working Group on Lithium Batteries (UN-IWG) was developing. The test results suggested these batteries did not pose the same level of risk to transport as conventional lithium batteries. A working paper was subsequently presented to the sixty-fourth session of the UN Sub-Committee (Geneva, 24 June to 3 July 2024) proposing to assign a new special provision to UN 3480 – **Lithium ion batteries** and UN 3481 – **Lithium ion batteries contained in equipment** in the UN Model Regulations excepting them from full regulation under certain conditions. DGP-WG/24 was provided a detailed overview of comments raised when the paper was presented. The proposal was not accepted, but the Sub-Committee recognized that some batteries might have a lower hazard than others and recommended that the UN-IWG finalize tests that demonstrated no hazardous effects as a matter of priority. The proposer would continue to collaborate with the UN-IWG and would keep the DGP informed of developments.

4.4.8 **Update on the Development of a Hazard-Based Classification System for Lithium Batteries by the UN Informal Working Group on Hazard-Based Classification of Lithium Batteries (DGP-WG/24-IP/3) and Update on Progress Made by the UN Sub-Committee's Informal Working Group on Lithium Batteries in the Development of a Hazard-Based Classification System For Lithium Batteries And Cells (DGP-WG/24-IP/7)**

4.4.8.1 DGP-WG/24 was provided a report of the UN-IWG on its development of a hazard-based classification system for lithium batteries that was presented to the Sixty-fourth session of the UN Sub-Committee. The chairman of the UN-IWG provided an overview of the system and an update on progress made since the UN Sub-Committee meeting. UN-IWG identified four hazardous effects of thermal runaway to base classification on and developed a test methodology to determine if a cell or battery in thermal runaway caused:

- a) propagation of thermal runaway between cells or batteries;
- b) generation of flame;
- c) release of significant toxic or flammable gases; or
- d) production of high heat.

4.4.8.2 UN-IWG was developing a system to categorize cells and batteries based on the hazard level identified through the testing. The level of granularity was still being worked out. The work was focused on the testing methodology and not the transport conditions. These would be developed later as a

separate phase of project. DGP-WG/24 expressed its appreciation to the chair of the UN-IWG for the update.

4.4.9 Information on the Status of European Union Aviation Safety Agency (EASA) Research Projects (DGP-WG/24-IP/6)

4.4.9.1 The meeting was presented with an update on research activities at the European Aviation Safety Agency (EASA) to support the assessment of risks associated with:

- a) fire or smoke involving lithium batteries in the cabin;
- b) a cargo compartment fire involving bulk shipments of lithium batteries or portable electronic devices powered by lithium batteries in baggage; and
- c) the detection of lithium batteries using screening equipment.

4.4.9.2 The outcome of the research activities is provided in DGP-WG/24-IP/6. The working group expressed its great appreciation for the research and analysis done and the excellent update provided. The information would support future decisions of the panel.

4.5 Agenda Item 5: Clarifying State oversight responsibilities in Annex 18 (Ref: Job Card DGP.005.05)

4.5.1 Proposed Revisions to Amendment to Annex 18 to Clarify States' Responsibilities with Respect to the Safe Transport Of Dangerous Goods By Air (DGP-WG/24-IP/1)

4.5.1.1 Amendments to Annex 18 – *The Safe Transport of Dangerous Goods by Air* to clarify States' responsibilities with respect to the safe transport of dangerous goods by air were agreed at DGP/29, subject to fine-tuning by the DGP Working Group on Annex 18 (DGP-WG/Annex 18) and in response to feedback through coordination with relevant experts. DGP-WG/24 was presented with a revised proposed amendment to Annex 18 based on the recommendations of DGP-WG/Annex 18 following its detailed review and its consideration of feedback from the Aviation Security Panel (AVSECP) and preliminary feedback from safety management experts. Formal coordination with the Safety Management Panel was scheduled during its seventh meeting from 10 to 13 December 2024 (SMP/7) and with the Flight Operations Panel during its eleventh meeting from 20 to 24 January 2025 (FLTOSP/11).

4.5.1.2 Amendments to the operator responsibilities were the last amendments developed by DGP-WG/Annex 18. They were subjected to a much less detailed review than was given to other parts of the amendment due to time constraints. The amendments necessitated consequential amendments to Annex 6, but these had yet to be developed. Flight operations experts had several initial concerns related to their impact on Annex 6 prior to formal coordination with FLTOSP that would take place soon before the start of the ANC's preliminary review process. The Secretariat, concerned that the amendments would not be mature enough for preliminary review, advised the working group to consider replacing the draft amendments to the operator responsibilities in the complete amendment package with the existing operator responsibilities, recognizing that editorial revisions would be necessary to accommodate the proposed new structure of Annex 18. The working group could then take the time to refine the amendments for endorsement at DGP/30. The working group, preferring not to remove anything from the package, agreed to refine the amendments through virtual meetings before submitting them to FLTOSP/11 for formal coordination. If unresolved issues remained, the existing operator responsibilities

in Annex 18 with editorial revisions would be included with the amendment package. The working group questioned if the ANC might decide to delay its preliminary review of the whole amendment package should the operator responsibilities not be mature enough. The working group recommended that the ANC consider sending the amendments for State consultation in two batches, the first as originally planned and the second in 2026 following DGP/30. It also recommended that the ANC consider the same applicability date for both batches to alleviate the burden on States. This would be later than originally planned, but the working group believed this would benefit States as they would have more time to implement a substantial amendment. The Secretary would report back to the working group on the ANC's preferred way forward.

4.5.1.3 The amendment, as revised by DGP-WG/24 (revisions shown as yellow-highlighted text), is presented in Appendix A to this report.

4.6 Agenda Item 6: Dangerous goods provisions to support RPAS operations (Ref: Job Card DGP.007.02)

4.6.1.1 A summary of progress made by the DGP Working Group on Remotely Piloted Aircraft Systems (DGP-WG/RPAS) was provided. Twelve meetings had been convened since the group was established. DGP-WG/RPAS completed its review of Annex 18, which resulted in proposed amendments that were incorporated with the larger amendment to Annex 18 developed under the panel's work to clarify States' dangerous goods responsibilities (see Agenda Item 5 of this report). The working group has since focused on reviewing the Technical Instructions. It determined that it was unnecessary to review the hazard classification provisions in Part 2, given that the hazards were constant regardless of the type of operation. It determined that a review of the passenger provision in Part 8 was also unnecessary, given the absence of RPAS passenger operations. All other parts were given at least an initial review and areas which needed specific provisions to address RPAS operations were identified. A new chapter on RPAS operations for incorporation in Part 7 of the Technical Instructions (Operator's Responsibilities) would be developed, with plans to submit it to the 2025 Working Group Meeting for review. A formal amendment proposal was planned for DGP/30 with the intent of incorporating RPAS provisions in the 2027-2028 Edition of the Technical Instructions.

4.6.1.2 DGP-WG/RPAS saw a potential need for amendments to Doc 9481 and Doc 10102 to support RPAS operations, but it had not yet started reviewing these documents.

4.6.1.3 DGP-WG/RPAS was tasked with ensuring Annex 18 and the Technical Instructions accommodated new Part IV to Annex 6 – *International Operations – Remotely Piloted Aircraft Systems*, which was planned for applicability in November 2026. The applicability of Annex 6, Part IV was the operation of RPAS certificated in accordance with Annex 8 – *Airworthiness of Aircraft* by operators authorized to conduct international RPAS operations. DGP-WG/RPAS, noting that Annex 18 recommended that the Annex and the Technical Instructions be adopted for domestic operation and that many States were dealing with RPAS operations in non-certified aircraft that could involve the carriage of dangerous goods, suggested that guidance should be developed to support such operations. DGP-WG/RPAS would bring a formal proposal seeking the panel's endorsement for developing this guidance material once the work already assigned to it was nearing completion.

4.7 Agenda Item 7: Aviation security/dangerous goods coordination

4.7.1 The Chief of the Aviation Security Policy (ASP) Section and Secretary of the Aviation Security Panel (AVSECP) provided a closed briefing on security issues that could have an impact on dangerous goods and an open briefing on her panel's views of DGP provisions proposed for inclusion in

Annex 18 that could impact security. She noted that AVSECP was highly appreciative of the DGP for seeking AVSECP's feedback. AVSECP did, however, have concerns that the proposed SARPs could lead to new responsibilities and obligations for aviation security screeners that would likely distract them from their primary task, i.e. the detection of prohibited articles such as explosives. They were particularly concerned with any SARP that mandated dangerous goods training for security personnel. She noted a distinction between "training" and "awareness training" in the aviation security sector and suggested that a common understanding of the meanings in both sectors would lead to more productive discussions. Aviation security experts were sympathetic to challenges with respect to lithium batteries and supported efforts for the two panels to work together to address them. They were overwhelmed by the extensive list of dangerous goods and felt that screening for all of them would hamper the ability to focus on aviation security responsibilities. AVSECP concluded that further work was needed on the matter, including an impact assessment, and welcomed further collaboration with the DGP to identify solutions that did not have a detrimental impact on security.

4.7.2 DGP-WG/24 stressed that the intention was not to introduce any amendments that would be detrimental to aviation security. AVSECP concerns regarding training had already been addressed by removing the mandatory requirement originally proposed from the amendment package. The remaining Standards were performance based and not directed at security screeners. They were necessary because of a known risk of non-compliance with dangerous goods regulations. It would be up to individual States to determine what mitigating measures against the risk of non-compliance were needed, and the impact of any specific measure would need to be considered. The AVSEC chief and panel secretary recommended that panel members share how measures to mitigate against non-compliance were implemented in their States, including an indication of their effectiveness and impact on other sectors. This information could then be shared with AVSECP as part of an impact assessment. DGP-WG/24 supported this endeavour. Members would work with the Secretary to determine the best approach for sharing the information with AVSECP.

4.7.3 DGP-WG/24 expressed its appreciation to the AVSEC chief and panel secretary and welcomed the opportunity to work with AVSECP to achieve the shared objective of both panels, i.e. the safety of passengers, crew, ground personnel and the general public.

4.8 Agenda Item 8: Coordination with other Air Navigation Commission panels

4.8.1 Recommended Change to the Operations Specifications Template (DGP-WG/24-WP/6)

4.8.1.1 The working group was invited to consider recommending amendments to the specific approval for dangerous goods field on the operations specification template provided in Annex 6, Parts I and III to clarify it applied to dangerous goods *as cargo*. While supporting efforts to provide clarity, the working group believed more consideration was needed to avoid any unintended consequences.

4.8.2 Proposed Amendment to Delete the Definitions of Passenger Aircraft and Cargo Aircraft (DGP-WG/24-WP/9)

4.8.2.1 An amendment was proposed aimed at allowing persons other than required crewmembers to be on board a cargo aircraft carrying "cargo aircraft only" dangerous goods. The proposal was developed following discussions at DGP/29 and earlier meetings on the practice in some States of determining who could be on an aircraft based on the definitions for passenger and cargo aircraft in the Technical Instructions. The definitions led to inconsistencies between States as to who was allowed onboard aircraft carrying

“cargo aircraft only” dangerous goods. This created the potential for an aircraft departing a State allowing certain persons onboard to land in another State where such persons would not be allowed onboard. DGP originally agreed to an amendment to the definition for passenger aircraft with the aim of removing unreasonable restrictions. However, flight operations experts and the Air Navigation Commission (ANC) opposed determining who could be on board an aircraft through a definition in Annex 18, because this was an operational issue under Annex 6. They also emphasized that definitions were included in Annexes to assist in the interpretation of terms used but were not in themselves regulatory text. Changing requirements through a definition was therefore inappropriate.

4.8.2.2 The proposal presented to DGP-WG/24 was to delete the definitions of passenger aircraft and cargo aircraft in the Technical Instructions and to add text to the provisions for loading cargo aircraft in 7;2.4.1 authorizing the operator to allow persons other than required crewmembers on board the aircraft in accordance with requirements specified by the State of the Operator and the relevant provisions of Annex 6.

4.8.2.3 While there were some who supported the proposal and none who opposed the provision proposed for Part 7 in principle, several could not support the deletion of the definitions. They believed there would be unintended consequences, given that the terms were used in Table 3-1 to differentiate what could be transported on a passenger aircraft from what could be transported on a cargo aircraft. The terms were used in the Technical Instructions since its first edition. Deleting them would be a significant change that should not be made without a thorough impact assessment. Others believed the dictionary meaning, coupled with the proposed new provision for Part 7, would suffice. Noting that aircraft were not categorized as passenger or cargo aircraft in Annex 8 – *Airworthiness of Aircraft* and that the terms were not used in Annex 6, it was suggested to replace references to them with “passenger-carrying aeroplane”, the term used in Annexes 6 and 8, and “cargo only carrying aeroplane” or “passenger operations” and “cargo only operations”. Some did not see this as a solution, as they believed there would still be a need to define what was meant by “passenger”. Others could support this approach, in combination with the proposed addition to Part 7, as this would harmonize terminology with the other Annexes. They suggested the fact that they were long-standing terms used in the other Annexes and were not defined was an indication that there was no need for definitions. There was some support for accepting the amendment to Part 7 without deleting the definitions, but others thought that the Part 7 provision would then conflict with the definition for passenger aircraft.

4.8.2.4 The amendment was not agreed. Further consideration would be given for an alternative approach to address the issue.

4.8.3 **Interpanel Coordination: Proposed Amendment to Annex 6, Parts I and III for Ramp Inspection of Foreign Operators (DGP-WG/24-WP/29)**

4.8.3.1 DGP-WG/24 was asked for feedback on a proposed amendment to Annex 6, Parts I and II developed by FLTOPSP. The amendment would introduce a specific requirement for a State’s safety oversight system to include ramp inspections of aircraft, as part of the existing requirement for surveillance of operations by foreign operators, and a new appendix containing minimum requirements for a ramp inspection programme, including a requirement for the transport of dangerous goods to be addressed. The amendment was developed to address both the lack of ramp inspection programmes in some States and inconsistencies among States that did implement them. Inconsistencies with how ramp inspections were conducted presented challenges for operators needing to meet different expectations. FLTOPSP was in the process of developing guidance material to support the provisions. Amendments to Part IV were also needed but not yet developed, because there were more specifics that needed to be considered for RPAS operations.

4.8.3.2 DGP-WG/24 expressed its appreciation to the flight operations experts for providing the DGP with the opportunity to comment on the amendments proposed. The importance of including guidance specific to the handling of cargo and dangerous goods was highlighted, along with the need for training. Several revisions to the text of the SARPs were suggested with the aim of improving clarity. Whether the SARPs were intended to apply to surveillance activities other than inspections was questioned, noting that the proposed amendments to Chapter 4 were in the section for *surveillance* of operations by a foreign operator.

4.8.3.3 The comments from DGP-WG/24 were appreciated. They would be provided to FLOPSP for consideration, and there would be continued collaboration with the DGP.

4.8.4 **Update on work of the Flight Operations Panel Safe Carriage of Goods Specific Working Group (FLTOPSP-SCGSWG) (DGP-WG/24-IP/8)**

4.8.4.1 The secretary of FLTOPSP-SCGSWG provided an update on its activities. The specific working group had three job cards assigned to it:

- a) SCGSWG.001.01: Structure of the dangerous goods provisions, which was on hold pending the DGP's completion of its amendment to Annex 18;
- b) SCGSWG.002.01: Dangerous goods risks introduced by entities in the cargo supply chain; and
- c) SCGSWG.003.01: Procedures for preventing and responding to incidents involving lithium batteries carried by crew, passengers and the operator aboard the aircraft.

4.8.4.2 Regarding SCGSWG.002.01, FLTOPSP-SCGSWG was closely monitoring the DGP's work on amending Annex 18 and supported the amendments developed to address safety risks associated with the supply chain. It was developing guidance material on different approaches that can be implemented to detect undeclared dangerous goods.

4.8.4.3 Regarding SCGSWG.003.01, FLTOPSP-SCGSWG, the first phase of the group's work was to develop bowtie diagrams as a tool to visual the risks, mitigating measures and to identify safety gaps. It was reviewing research data on the effectiveness of personal protection equipment, fire protection bags and water as a fire suppressant. The group's preliminary findings and potential recommendations were both at the operational and regulatory level. They included efforts to develop passenger and crew awareness of the dangers associated with lithium batteries to improve compliance with safety measures, better flight and cabin training on preventing and responding to incidents, and guidance on dealing with thermal runaway events for inclusion in aircraft operations manuals. The group had focused on airplanes, but it identified a need to consider general aviation and helicopters. While there were existing procedures in Doc 9481 for incidents in the cabin, there was little if any guidance for incidents on the flight deck. The specific working group's main concern was therefore the flight deck. The development of material would be informed by the result of research activities in States.

4.8.4.4 The FLTOPSP-SCGSWG secretary would keep DGP informed of the specific working group's activities and looked forward to further coordination on the two groups joint projects.

4.9 **Agenda Item 9: Harmonization of *Guidance Material for the Dangerous Goods Panel (DGP) to Aid in the Preparation of the Technical Instructions and Supporting Documents* with revised dangerous goods provisions**

4.9.1 There were no proposals developed under this agenda item.

4.10 **Agenda Item 10: Other business**

4.11 **DGP working group rapporteurs**

4.11.1 The chair noted the need for a new rapporteur for DGP-WG/UN Harmonization to replace Mr. D. Brennan, who had retired. B. Firkins, the panel member nominated by IATA, agreed to take on the role.

4.11.2 The chair noted that all rapporteurs would be expected to update the DGP on their group's progress at each future meeting, including progress made for each element on the working group's associated job card.

4.12 **Future meetings**

4.12.1 DGP's 2025 Working Group Meeting (DGP-WG/25) was likely to be held in India from 21 to 25 April 2025. DGP-WG/24, recognizing the outreach opportunity in a region that had only recently been involved with the panel's work, discussed the possibility of holding a dangerous goods workshop either before or after the working group meeting. The secretary would bring the idea to the attention of officials in India.

4.12.2 The dates for DGP/30 were not yet confirmed. The dates were pending confirmation of dates for the 42nd Session of the ICAO Assembly. The secretary would advise members via e-mail once they were.

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APPENDIX A

PROPOSED AMENDMENT TO ANNEX 18

PROPOSED AMENDMENT TO ANNEX 18 — THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show revisions as shown below:

~~Text to be deleted is shown in blue with a blue line through it.~~ (strikeout text)

text to be deleted

New text to be inserted is shown in red with red underline (redline text)

new text to be inserted

~~Text to be deleted is shown in blue with a blue line through it.~~ (strikeout text) followed by the replacement text which is shown in red with red underline (redline text).

new text to replace existing text

Text moved from a different location is identified with a reference to the location it is moved from in a light-red shaded box immediately before the redline text in the new location.

text moved from a different location

Text that is moved to a different location is identified with a reference to the location it is moved to in a light-blue shaded box immediately before the strikeout text in the original location.

text moved to a different location

FOREWORD

Historical background

~~The material in this Annex was~~The provisions of Annex 18 govern the international transport of dangerous goods by air. They were developed by the Air Navigation Commission in response to a need expressed by Contracting States for an internationally agreed set of provisions governing the safe transport of dangerous goods by air. ~~In order to assist in achieving compatibility with the regulations covering the transport of dangerous goods by other modes of transport, the provisions of this Annex are based on the Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods and the Regulations for the Safe Transport of Radioactive Materials of the International Atomic Energy Agency~~They were originally adopted by Council on 26 June 1981 and became applicable on 1 January 1984.

The significant growth and complexity in air cargo operations since Annex 18 was first adopted necessitates the implementation of the same proactive strategy to improve safety performance needed in other aviation sectors through the State safety programme (SSP). Accordingly, provisions aimed at ensuring States integrate dangerous goods operations within their SSP were adopted by Council on ... 2026 through Amendment 13. The provisions provide clarity and sufficient detail to effectively outline States' responsibilities with respect to the safe transport of dangerous goods by air and the interrelationship of responsibilities between dangerous goods and other aviation activities.

Relationship with the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284)

~~The provisions of Annex 18 govern the international transport of dangerous goods by air.~~ The broad provisions of this Annex are amplified by the detailed specifications of the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) ~~).~~ (Technical Instructions). The provisions of the Technical Instructions are based on recommendations on the transport of dangerous goods developed for all modes of transport by the United Nations Economic and Social Council's Committee of Experts on the Transport of Dangerous Goods. The intent of using this common base by all modes of transport is to allow cargo to be transferred safely and smoothly between air, sea, rail, and road modes. Modifications from these recommendations are made in the Technical Instructions to address specific aviation needs while keeping in mind the need to ensure modal compatibility.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<p>Justification: The objective of Annex 18 is currently provided under the heading for “Relationship with the <i>Technical Instructions for the Safe Transport of Dangerous Goods by Air</i>”. It is proposed to move the objective as a general statement at the beginning of the Foreword under the heading for “Historical background” to make it immediately clear.</p> <p>The current text under “Historical background” about the provisions of the Annex being based on the Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods and the Regulations for the Safe Transport of Radioactive Materials of the International Atomic Energy Agency is inaccurate. It is not the Annex that is based on these recommendations and regulations, but rather the Technical Instructions. It is proposed to explain the relationship with these bodies in the “Relationship with the Technical Instructions” section. It is also proposed to delete the reference to the IAEA regulations as it is considered unnecessary. The relevant material from these regulations are included in the United Nations recommendations upon which the Technical Instructions are based. The input from the IAEA is explained in the Foreword of the Technical Instructions.</p> <p>The adoption and applicability dates of the Annex are proposed for inclusion in the Annex for the sake of consistency with other Annexes.</p>

Status of the Technical Instructions

The detailed requirements of the Technical Instructions are considered binding on a State by virtue of 2.3.1.1 of this Annex unless it has notified a difference to this provision under Article 38 of the Convention.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<p>Justification: The inside cover of Annex 18 explains the status of the Technical Instructions. The status was agreed by Contracting States in recognition of the critical role the Technical Instructions for safety. It is proposed to make this explanation more visible by including it in the Foreword.</p>

Amendments to Annex 18 and the Technical Instructions

Annex 18 is intended to contain stable material requiring only minor amendments using the normal Annex amendment process. The Technical Instructions require more substantial and frequent amendments to keep up with day-to-day operational use.

The Air Navigation established the Dangerous Goods Panel (DGP) and tasked it with maintaining the Technical Instructions. The DGP meets periodically to review comments received from States and interested international organizations, to consider any changed recommendations of the United Nations Committee, to address safety and facilitation issues specific to air transport and to prepare revised editions of the Technical Instructions. Amendments recommended by the DGP are published in panel meeting reports and made available on www.icao.int/safety/DangerousGoods/.

Amendments recommended by the DGP are reviewed by the Air Navigation Commission and approved, issued and amended by the Council. Action taken by the Air Navigation Commission or the Council on the recommendations is published in the Supplement to DGP meeting reports and made available on www.icao.int/safety/DangerousGoods/.

A new edition of the Technical Instructions is published every two years. Amendments to the Technical Instructions during the specific period of applicability of an edition of the document may also be published if deemed necessary. Amendments during the specific period of applicability are made available on www.icao.int/safety/dangerous_goods.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Justification: The status and amendment process for the Technical Instructions is unlike that for any other ICAO provisions. It is therefore considered necessary to make the process and the ability for States to see amendments being proposed visible.

Guidance

Guidance to States on the implementation of Annex 18 is contained in *Oversight and Management of the Safe Transport of Dangerous Goods by Air Manual (Doc xxxxx)*.

The Technical Instructions are supported by the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284). The Supplement contains guidance to assist States when considering authorizations to transport dangerous goods by air that the Technical Instructions forbid under normal circumstances through approvals or exemptions.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Justification: A new section containing references to available guidance is proposed to support States.

...

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. DEFINITIONS

When the following terms are used in this Annex, they have the following meanings:

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

- a) the transport of dangerous goods forbidden on passenger and/or cargo aircraft where the Technical Instructions state that such goods may be carried with an approval; or
- b) other purposes as provided for in the Technical Instructions.

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

Cargo. Any property carried on an aircraft other than mail and accompanied or mishandled baggage.

Note.— This definition differs from the definition of “cargo” given in Annex 9 — Facilitation.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The term is referred to in Annex 18. The definition is replicated from the Technical Instructions.

~~**Cargo aircraft.** Any aircraft, other than a passenger aircraft, which is carrying goods or property.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The term is not referred to in Annex 18.

Civil aviation authority (CAA). The governmental entity or entities, however titled, that are directly responsible for the regulation of all aspects of civil air transport, technical (i.e. air navigation and aviation safety) and economic (i.e. the commercial aspects of air transport).

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The term is referred to in Annex 18. The definition is replicated from the <i>Safety Oversight Manual</i> (Doc 9734).

Consignment. One or more packages of dangerous goods accepted by an operator from one shipper at one time and at one address, receipted for in one lot and moving to one consignee at one destination address.

Crew member. A person assigned by an operator to duty on an aircraft during a flight duty period.

Dangerous goods. Articles or substances which are capable of posing a ~~risk~~hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.

Origin:	Rationale:
DGP/26 AN Min. 207-5 AN Min. 209-2	Justification: The need was identified during work on harmonizing provisions of the Technical Instructions with the UN Recommendations on the Transport of Dangerous Goods for incorporation in the 2019-2020 Edition. The amendment corrected inaccurate use of the term “risk”. The definition in the Technical Instructions already aligns with the UN Model Regulations. The ANC conducted a final review of the amendment following State consultation. It was pointed out, and recognized by the Commission, that the amendment proposal was administrative in nature and, as such, should be consolidated with other Annex 18 amendment proposals which could imply a later applicability date than the currently indicated 7 November 2019. (AN Min 209-2).

Dangerous goods accident. An occurrence associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in fatal or serious injury to a person or major property or environmental damage.

Note.— A dangerous goods accident may also constitute an aircraft accident as defined in Annex 13— Aircraft Accident and Incident Investigation.

Origin:	Rationale:
DGP/26 and DGP/29	Clarification that a dangerous goods accident is not restricted to an accident associated with the operation of an aircraft. The wording aligns with text in the definition for dangerous goods incident. It is important to capture accidents not associated with the operation of an aircraft because they could indicate a safety deficiency that might have resulted in an aircraft accident if the dangerous goods had been loaded on the aircraft. (see DGP/26 Report and DGP/26-IP/6)

Dangerous goods incident. An occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, ~~which results in injury to~~ where:

a) a person; is injured;

b) there is property or environmental damage;

c) there is fire, breakage, spillage, leakage of fluid contents or radiation or there is other evidence that the integrity of the packaging has not been maintained. ~~Any; or~~

d) ~~occurrence relating to the transport of dangerous goods which seriously jeopardizes the safety of the aircraft or its occupants is also deemed to constitute a~~ is jeopardized.

Note.— A dangerous goods incident may also constitute an aircraft incident as defined in Annex 13 — Aircraft Accident and Incident Investigation.

Origin:	Rationale:
DGP/26 and DGP/29	— Editorial amendments to improve readability (see DGP/26 Report and DGP/26-IP/6). — “fluid” is replaced with “contents” to include solids. — Note added to establish relationship between a dangerous goods incident and an aircraft incident under Annex 13. It is similar to the one added under “Dangerous goods accident”.

Designated postal operator. Any governmental or non-governmental entity officially designated by a Universal Postal Union (UPU) member country to operate postal services and to fulfil the related obligations arising from the acts of the UPU Convention on its territory.

Exception. A provision in this Annex which excludes a specific item of dangerous goods from the requirements normally applicable to that item.

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

Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

Misdeclared dangerous goods. Dangerous goods offered for transport by air that are identified to not be in accordance with the information provided on the dangerous goods transport document or other documentation, when applicable.

Note.— Dangerous goods identified by the operator during the acceptance check as not being in compliance with the applicable provisions of the Technical Instructions are not included in this definition.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The term is referred to in Annex 18.

Operator. A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Overpack. An enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.

Note.— A unit load device is not included in this definition.

Package. The complete product of the packing operation consisting of the packaging and its contents prepared for transport.

Packaging. ~~Receptacles~~ One or more receptacles and any other components or materials necessary for the ~~receptacle~~ receptacles to perform ~~its~~ their containment ~~function~~ and other safety functions.

Note.— For radioactive material, see Part 2, paragraph 7.2.1.3 of the Technical Instructions.

<i>Origin:</i>	<i>Rationale:</i>
DGP/27 AN Min. 213-3	Recommended by DGP/27 (Recommendation 1/1). Harmonizes the definition with the one contained in the UN Recommendations on the Transport of Dangerous Goods and corrects an out-of-date reference in the note. The definition is also contained in the Technical Instructions and already aligns with the UN Model Regulations. The Air Navigation Commission made a preliminary review of Recommendation 1/1 and, noting the amendment was editorial in nature, agreed that it should be referred for comments to Contracting States and appropriate international organizations, together with the Commission's own comments and proposals thereon, only as part of a more substantive amendment to Annex 18. (AN Min. 213-3)

~~**Passenger aircraft.** An aircraft that carries any person other than a crew member, an operator's employee in an official capacity, an authorized representative of an appropriate national authority or a person accompanying a consignment or other cargo.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The term is not referred to in Annex 18.

Pilot-in-command. The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

Remote pilot-in-command. The remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.

Origin:	Rationale:
DGP/29	The term is referred to in Annex 18.

Safety management system (SMS). A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Serious injury. An injury which is sustained by a person in an accident and which:

- requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
- results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- involves injury to any internal organ; or
- involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or
- involves verified exposure to infectious substances or injurious radiation.

State of Destination. The State in the territory of which the consignment is finally to be unloaded from an aircraft.

State of Origin. The State in the territory of which the consignment is first to be loaded on an aircraft.

State of the Operator. The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

Technical Instructions. The *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284), approved and issued periodically in accordance with the procedure established by the ICAO Council.

Undeclared dangerous goods. Dangerous goods offered for transport by air where there is no dangerous goods transport document or other documentation, when permitted, describing the contents as containing dangerous goods or the package is not marked or labelled to identify the contents as containing dangerous goods, as required by the Technical Instructions.

Origin:	Rationale:
DGP/29	The term is referred to in Annex 18.

UN number. The four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals to identify an article or substance or a particular group of articles or substances.

Unit load device (ULD). ~~Any type of freight container, or a combination of an aircraft pallet with a net, or and an aircraft pallet with a net over an igloo. Any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.~~ A device for grouping and restraining cargo, mail and baggage for air transport. It is either an aircraft container, or a combination of an aircraft pallet with a net, or and an aircraft pallet with a net over an igloo. A ULD is designed to be directly restrained by the aircraft cargo loading system.

Note 1.— An overpack is not included in this definition.

Note 2.— A freight container for radioactive material is not included in this definition (see Part 2, paragraph 7.1.3 of the Technical Instructions).

<i>Origin:</i>	<i>Rationale:</i>
DGP/29 and DGP- WG/23	The definition has been in the Annex since its first edition. It is also contained in the Technical Instructions. The wording refers to older terminology and to articles that are no longer used. The amendment modernizes the terminology. The addition of Note 2 is made for the sake of alignment with the definition in the Technical Instructions. It was added to the Technical Instructions to differentiate a freight container for radioactive material from a ULD, because the former has specific characteristics that do not necessarily apply to a ULD. It was never made The amendment will ensure this concept is clear and ensure alignment between the two documents.

CHAPTER 2. ~~APPLICABILITY~~GENERAL

2.1 Objective

Each State shall have as a primary objective in the transport of dangerous goods by air the safety of the aircraft, its occupants, ground personnel, the general public and the environment.

Origin:	Rationale:
DGP/29	The safe transport of dangerous goods by air is dependent on the diligence of entities both within and outside the aviation system. The primary objective when using aviation to transport or carry dangerous goods for those outside the aviation system is not typically the safety of the aircraft and its occupants. It is therefore important to make this the primary objective when it comes to the safe transport of dangerous goods by air in addition to those entities that could be impacted by dangerous goods by other modes (i.e. ground personnel, the general public and the environment). This SARP is based on 2.1.1 of Annex 17 — <i>Security</i> , another Annex that deals with entities outside the aviation system.

~~2.1.2~~ General ~~Applicability~~

~~2.1.1~~2.2.1 The Standards and Recommended Practices of this Annex shall be applicable to ~~all~~ international ~~operations of civil aircraft~~ aviation.

Origin:	Rationale:
DGP/29	<ul style="list-style-type: none"> a) “General” is removed for the sake of consistency with other Annexes. b) Applying the Annex to aviation rather than to the operation of the aircraft is intended to ensure that entities other than the operator that contribute to the safe transport of dangerous goods are covered by this Annex.

The following is moved from 2.3:

2.2.2 Recommendation. ~~In the interests of safety and of minimizing interruptions to the international transport of dangerous goods, Each Contracting State should also take the necessary measures to achieve compliance with~~ apply the Standards and Recommended Practices contained in this Annex and the Technical Instructions for to domestic civil aircraft operations aviation.

Origin:	Rationale:
DGP/29	<ul style="list-style-type: none"> a) The provision relates to the applicability of the Annex and the Technical Instructions to domestic civil aircraft operations. There is a current recommendation to take the necessary measures to achieve compliance with the Annex and the Technical Instructions to domestic transport, but it is currently located outside of the applicability section of Chapter 2 (2.3). It is therefore proposed to move the recommended practice under the international applicability SARP. b) “Each” is added before “Contracting State” for the sake of consistency. c) The current recommendation refers to the Annex and the Technical Instruction. Removing the reference to the Technical Instructions is proposed as it is considered redundant, given that Annex 18 makes the document binding on a State.

	<p>d) It is proposed to replace “to achieve compliance” with “apply” for the sake of clarity and consistency.</p> <p>e) Text referring to “the interests of safety and minimizing interruptions to the international transport of dangerous goods” is considered more appropriate as guidance material. It is therefore proposed to remove it from the recommended practice and to elaborate on the concept in a new guidance document to support the implementation of Annex 18 (<i>Oversight and Management of the Safe Transport of Dangerous Goods by Air Manual (Doc xxxxx)</i>).</p> <p>f) “to domestic aircraft operations” is replaced with “to domestic civil aviation” to align with the revision to the previous SARP for the same reason, i.e. to ensure that entities other than the operator that contribute to the safe transport of dangerous goods are covered.</p>
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The following is moved from 2.4.1:

~~2.4.1~~2.2.3 Articles and substances which would otherwise be ~~classed~~ classified as dangerous goods but which are required to be aboard the aircraft in accordance with the pertinent airworthiness requirements and operating regulations, or for those specialized purposes identified in the Technical Instructions, shall be excepted from the provisions of this Annex.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The provision in current 2.4.1 relates to the applicability of the Annex and the Technical Instructions, but it is currently located outside of the applicability section of Chapter 2. It is therefore proposed to move the Standard to this section, i.e. the applicability section.

The following is moved from 2.4.2:

~~2.4.2~~2.2.4 Where articles and substances intended as replacements for those described in ~~2.4.1~~ 2.2.3 or which have been removed for replacement are carried on an aircraft, they shall be transported in accordance with the provisions of this Annex except as permitted in the Technical Instructions.

The following is moved to new 2.4.2.1:

~~2.1.2 Where specifically provided for in the Technical Instructions, the States concerned may grant an approval provided that in such instances an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions is achieved.~~

The following is moved to new 2.4.2.2:

~~2.1.3 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 the public interest;~~

~~the States concerned may grant an exemption from the provisions of the Technical Instructions provided that in such instances every effort shall be made to achieve an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	It is proposed to move the approval and exemption provisions from the applicability section to the limitation on the transport of dangerous goods by air section because they are more associated with the latter than with applicability. Approvals and exemptions are already mentioned in that section, so keeping all the relevant SARPs together makes them more comprehensive.

~~2.1.4 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.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The Standard in 2.1.4 is proposed for deletion as it is considered more appropriate to address its intent, which is not clear by the wording, in guidance material. The intent of the SARP is to address challenges faced by the State of Overflight when considering whether to grant an exemption when the criteria for granting it are not applicable to that State. The challenges faced by the State of overflight are transferred to applicants, who are often unable to acquire an exemption. Addressing the issue through guidance will allow for more comprehensive assistance to States on the subject.

Note 1 is moved to under 2.4.2.1 and Notes 2 and 3 are moved to under 2.4.2.2:

~~Note 1. For the purpose of approvals, “States concerned” are the States of Origin and the Operator, unless otherwise specified in the Technical 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, Chapter 1, 1.2 and 1.3).~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Note 1 is specific to approvals and Notes 2 and 3 are specific to the exemptions. It is proposed to move Note 1 under the provision for approvals (now 2.4.2.1) and Notes 2 and 3 under the provision for exemptions (now 2.4.2.2) to improve clarity.

~~Note 4. Refer to 4.3 for dangerous goods forbidden for transport by air under any circumstances.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The note is necessary in the current Annex because the provisions for approvals and exemptions and the provisions for dangerous goods forbidden under any circumstance are in different sections of this chapter. This is no longer necessary, since all of these provisions are proposed for inclusion in the same location, i.e. the limitation on the transport of dangerous goods section.

Note 5 is moved to under the title of Chapter 6 (Operator's Responsibilities) as Note 4:

~~— Note 5. It is not intended that this Annex be interpreted as requiring an operator to transport a particular article or substance or as preventing an operator from adopting special requirements on the transport of a particular article or substance.~~

Origin:	Rationale:
DGP/29	The note is moved to Chapter 6: Operator responsibilities as Note 4. The note is currently under the provisions for approvals and exemptions, but its application goes beyond these. Moving the note to Chapter 6 makes the provisions for operators more comprehensive.

2.22.3 Compliance with the Dangerous Goods Technical Instructions

~~2.2.1~~2.3.1 Each ~~Contracting~~ State shall take ~~the necessary~~ measures ~~to~~ aimed at ensuring that any entity that offers, handles, transports or causes to be offered, handled or transported dangerous goods in cargo or mail achieves compliance with the detailed provisions contained in the Technical Instructions.

2.3.2 Each State shall take measures aimed at ensuring that passengers and crew members achieve compliance with the detailed provisions contained in Part 8 of the Technical Instructions.

2.3.3 Each ~~Contracting~~ State shall ~~also~~ take ~~the necessary~~ measures to ensure the entities referred to in 2.3.1 and 2.3.2 achieve compliance with any amendment to the Technical Instructions which may be published during the specified period of applicability of an edition of the Technical Instructions.

Origin:	Rationale:
DGP/29	<ul style="list-style-type: none"> a) The revision to the heading in 2.3 is proposed to better describe the intent of the section. b) Which entities are subject to the Technical Instructions has been the subject of extensive discussions on the Dangerous Goods Panel, specifically with respect to whether entities handling cargo but not intending to handle dangerous goods can be subject to them. Entities such as freight forwarders play an important role in preventing undeclared dangerous goods from being introduced into the air cargo system, so there has been a desire by members of the DGP to require training on how to identify and reject dangerous goods for all such entities, even if they do not intend to handle them. Some States do not have authority to enforce dangerous goods regulations on entities not performing functions described in the Technical Instruction. However, they do have authority over a person or organization once they have performed a dangerous goods function, such as offering cargo for transport that includes dangerous goods, regardless of whether they knowingly or unknowingly perform the function. The amendment to is intended to capture this concept. c) The current Standard could incorrectly be interpreted to imply that the State needs to comply with the detailed provisions contained in the Technical Instructions. It is the entities performing functions related to the transport of dangerous goods by air and passengers and crew carrying dangerous goods that need to achieve compliance. The proposed amendment makes who needs to comply with the Technical Instructions clear. It separates the provision into two, one to address those dealing with dangerous

	goods in cargo or mail (2.3.1) and the other to address passengers and crew carrying dangerous goods (2.3.2).
	c) Current 2.2.1 contains two Standards. An editorial amendment is proposed to create a separate Standard for compliance with any amendment to the Technical Instructions (2.3.3).

The following is moved to 4.3:

~~2.2.2~~ **Recommendation.**—~~Each Contracting State should inform ICAO of difficulties encountered in the application of the Technical Instructions and of any amendments which it would be desirable to make to them.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	It is proposed to move the requirement for States to inform ICAO of difficulties applying the Technical Instructions to a proposed new Chapter 3: Provision of information to ICAO. The new chapter is intended to contain all requirements related to providing ICAO with information in one place.

~~2.2.3~~ **2.3.4 Recommendation.**—*Although an amendment to the Technical Instructions with an immediate applicability for reasons of safety may not yet have been implemented in a Contracting State, such State should, nevertheless, facilitate the movement of dangerous goods in its territory which are consigned from another Contracting State in accordance with that amendment, providing the goods comply in total with the revised requirements.*

The following is moved from 2.6:

~~2.6~~ **2.3.5 Surface transportMultimodal transport**

Recommendation.—~~States~~ *Each State should make provisions take measures to enable dangerous goods intended for air transport and prepared in accordance with the ICAO Technical Instructions to be accepted for surface transport by other modes of transport to or from aerodromes.*

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<ul style="list-style-type: none"> a) The amendment to the heading is proposed because multimodal transport is a common term in the dangerous goods world and makes the intent of the provision easier to understand. b) Editorial revisions are proposed for the sake of clarity and consistency. c) The references to “ICAO” is unnecessary as there is now a definition for “Technical Instructions”. d) It is proposed to move the recommendation from its current location to this location so that all provisions related to the Technical Instructions are in one place.

2.4 Limitation on the transport of dangerous goods by air

The following is moved from 4.1:

4.1.2.4.1 Dangerous goods permitted for transport by air

2.4.1.1 Each State shall only permit ~~the~~ the transport of dangerous goods as cargo or mail by air ~~shall be forbidden except~~ as established in this Annex and the detailed ~~specifications and procedures provided in~~ provisions of the Technical Instructions.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<ul style="list-style-type: none"> a) Moved from Chapter 4 (Limitation on the transport of dangerous goods by air) to keep the general regulatory framework for transport of dangerous goods by air in one place. b) Editorial revisions to the Standard are proposed to improve clarity by aligning the wording with the header. c) “Each Contracting State” is added to reflect the fact that the SARP is directed at the State. d) The addition of a reference to cargo or mail is proposed to differentiate from passenger baggage in the next SARP (2.4.1.2). e) “specifications and procedures” is replaced with “provisions” for the sake of consistency with other parts of the Annex.

2.4.1.2 Each State shall only permit the carriage of dangerous goods by passengers or crew members when specifically permitted in accordance with Part 8 of the Technical Instructions.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<ul style="list-style-type: none"> a) New Standard which replaces the exception from the Annex of specific articles and substances carried by passengers or crew members currently contained in 2.4.3 because dangerous goods carried by passengers and crew are not excepted from the Annex. They are forbidden unless specifically permitted in the Technical Instructions, and there are criteria for allowing them there. b) Having the provision here clarifies the distinction between dangerous goods carried as cargo and dangerous good carried by passengers and crew and the fact that they are both covered by the Annex

The following heading and Standard are moved from 4.2:

4.2.2.4.2 Dangerous goods forbidden for transport by air unless approved or exempted

~~The dangerous goods described hereunder shall be forbidden on aircraft unless exempted by the States concerned under the provisions of 2.1 or~~ Each State shall not permit the transport of dangerous goods identified in the Technical Instructions as being forbidden for transport by air under normal circumstances unless the provisions of the Technical Instructions indicate they may be transported under an approval granted by the ~~State of Origin~~ States concerned in accordance with 2.4.2.1 or an exemption granted by the States concerned in accordance with 2.4.2.2.

~~— a) dangerous goods that are identified in the Technical Instructions as being forbidden for transport in normal circumstances; and~~

~~— b) infected live animals.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<ul style="list-style-type: none">a) Moved from Chapter 4 (Limitation on the transport of dangerous goods by air) to keep the general regulatory framework for transport of dangerous goods by air in one place.b) The addition of “ approved” in the heading is proposed because the SARP refers to both approvals and exemptions.c) “Each Contracting State shall not permit ...” added to reflect the fact that the SARP is directed at the State.d) Editorial amendments to clarify intent.e) The references to exemption and approval provisions have changed because it is proposed to move these provisions from the general applicability section this section.f) Reference to only State of Origin for an approval is inconsistent with what is currently in the general applicability section which includes the State of the Operator as part of the approval process. “States concerned” is explained under the specific provisions for approvals (2.4.2.1) and exemptions (2.4.2.2) below.g) Deleted “infected live animals” because this is covered by the Technical Instructions.

2.4.2.1 Approvals

The following Standard is moved from 2.1.2:

2.1.2—Where specifically provided for in the Technical Instructions, the States concerned may grant an approval provided that in such instances an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions is achieved.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<ul style="list-style-type: none">a) Moved from the current general applicability section in 2.1.2 as it relates more to the limitation provisions than to applicability provisions.b) Addition of heading for the sake of clarity.

The following noted is moved from 2.1 (below 2.1.4):

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

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The note applies to the States concerned when issuing an approval. It is moved from under 2.1.4 (Note 1) so that it is directly below the approval provision.

2.4.2.2 Exemptions

The following Standard is moved from 2.1.3:

2.1.3—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 the public interest,

the States concerned may grant an exemption from the provisions of the Technical Instructions provided that in such instances every effort shall be made to achieve an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions.

Origin:	Rationale:
DGP/29	a) Moved from the current general applicability section in 2.1.3 as it relates more to the limitation provisions than to applicability provisions. b) Addition of heading for the sake of clarity.

The following note is moved from 2.1 (below 2.1.4):

Note—~~2~~ 1.— For the purpose of exemptions, “States concerned” are the States of Origin, Operator, Transit, Overflight and Destination.

Origin:	Rationale:
DGP/29	The note applies to the States concerned when issuing an exemption. It is moved from under 2.1.4 (Note 2) so that it is directly below the exemption provision.

The following note is moved from 2.1 (below 2.1.4):

Note—~~3~~ 2.— Guidance for the processing of exemptions, including examples of extreme urgency, may be found in the ~~Supplement to the Technical Instructions (Part S 1, Chapter 1, 1.2 and 1.3)~~ Oversight and Management of the Safe Transport of Dangerous Goods by Air Manual (Doc xxxxx), Chapter yy.

Origin:	Rationale:
DGP/29	The guidance for processing of exemptions is currently contained in the Supplement to the Technical Instructions, but it is proposed to move all guidance specific to States from the Supplement to a new manual so that all guidance is consolidated in one place. The note is updated accordingly.

The following heading and Standard are moved from 4.3:

~~4.3~~ 2.4.3 Dangerous goods forbidden for transport by air under any circumstances

~~Articles and substances that are specifically identified by name or by generic description in the Technical Instructions as being forbidden for transport by air under any circumstances shall not be carried on any aircraft.~~

2.4.3.1 Each State shall forbid any article or substance to be transported by air under any circumstance if, as presented for transport, it is liable to explode, dangerously react, produce a flame or dangerous evolution of heat or dangerous emission of toxic, corrosive or flammable gases or vapours under conditions normally encountered in transport.

2.4.3.2 Each State shall not grant approvals or exemptions for articles and substances identified in 2.4.3.1.

Note.— Guidance on dangerous goods forbidden for transport under any circumstance is provided in Doc xxxx, Chapter yy.

Origin:	Rationale:
DGP/29	<p>a) Moved from Chapter 4 (Limitation on the transport of dangerous goods by air) to keep the general regulatory framework for transport of dangerous goods by air in one place.</p> <p>b) The current SARP in 4.3 refers to articles or substances specifically identified by name or by generic description in the Technical Instructions as being forbidden for transport under and circumstance. The Technical Instructions make it clear that it is not possible to list all dangerous goods that should be forbidden under any circumstance. It is therefore proposed to include an explanation of what cannot be safely transported on an aircraft in the SARP and to include guidance for determining this in the new document referred to in the note.</p> <p>c) States should not grant approvals or exemptions to transport such articles or substances. New 2.4.3.2 makes this clear.</p>

The following is moved to 2.2:

2.3—Domestic civil aircraft operations

~~—Recommendation.—In the interests of safety and of minimizing interruptions to the international transport of dangerous goods, Contracting States should also take the necessary measures to achieve compliance with the Annex and the Technical Instructions for domestic civil aircraft operations.~~

Origin:	Rationale:
DGP/29	The recommendation relates to the applicability of the Annex and the Technical Instructions to domestic civil aircraft operations. It is therefore proposed to move the recommended practice to the applicability section of this chapter (2.2.2).

The following is moved to 2.2.3:

2.4—Exceptions

~~—2.4.1—Articles and substances which would otherwise be classed as dangerous goods but which are required to be aboard the aircraft in accordance with the pertinent airworthiness requirements and operating regulations, or for those specialized purposes identified in the Technical Instructions, shall be excepted from the provisions of this Annex.~~

Origin:	Rationale:
DGP/29	The SARP relates to the applicability of the Annex and the Technical Instructions. It is therefore proposed to move it to the applicability section of this chapter (2.2.3).

The following is moved to Chapter 6:

~~—2.4.2—Where articles and substances intended as replacements for those described in 2.4.1 or which have been removed for replacement are carried on an aircraft, they shall be transported in accordance with the provisions of this Annex except as permitted in the Technical Instructions.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	This SARP is proposed to be captured in Chapter 6 — Operator Responsibilities. Chapter 6 is intended to outline the dangerous goods elements the State of the Operator needs to consider when authorizing an operator to conduct air transport operations. How an operator ensures that articles and substances classified as dangerous goods which are intended as replacements is one of those elements. Addressing this in Chapter 6 instead of this chapter allows for a comprehensive list of elements to be considered.

~~2.4.3 Specific articles and substances carried by passengers or crew members shall be excepted from the provisions of this Annex to the extent specified in the Technical Instructions.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The exception for dangerous goods carried by passengers and crew is proposed for deletion because they are not excepted from the Annex. They are forbidden unless specifically permitted in the Technical Instructions, and there are criteria for allowing them there. A new SARP related to dangerous goods carried by passengers and crew is proposed for inclusion under Dangerous goods permitted for transport by air (see proposed 2.4.1) and a new chapter devoted to dangerous goods permitted for carriage by passengers and crew (Chapter 7).

The is moved to 3.2:

2.5 Notification of variations from the Technical Instructions

~~2.5.1 Where a Contracting State adopts different provisions from those specified in the Technical Instructions, it shall notify ICAO promptly of such State variations for publication in the Technical Instructions.~~

~~Note. Contracting States are expected to notify a difference to the provisions of 2.2.1 under Article 38 of the Convention only if they are unable to accept the binding nature of the Technical Instructions. Where States have adopted different provisions from those specified in the Technical Instructions, they are expected to be reported only under the provisions of 2.5.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The requirement for States to inform ICAO of State variations is proposed to be moved to a new Chapter 3: Provision of information to ICAO. The new chapter is proposed so that all requirements related to providing ICAO with information is in one place.

~~2.5.2 Recommendation. The State of the Operator should take the necessary measures to ensure that when an operator adopts more restrictive requirements than those specified in the Technical Instructions, the notification of such operator variations is made to ICAO for publication in the Technical Instructions.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Few operator variations are reported to ICAO, and updates to already reported variations are not always provided. Users of the Technical Instructions cannot depend on these variations. Operator variations are more reliably reported to industry and included in industry regulations. It is therefore proposed that the recommendation be deleted.

The following is moved to 2.3.1.3:

~~2.6 — Surface transport~~

~~— **Recommendation.** States should make provisions to enable dangerous goods intended for air transport and prepared in accordance with the ICAO Technical Instructions to be accepted for surface transport to or from aerodromes.~~

The following is moved to Chapter 4.1:

~~2.7 — National authority~~

~~Each Contracting State shall designate and specify to ICAO an appropriate authority within its administration to be responsible for ensuring compliance with this Annex.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The requirement for States to designate and specify to ICAO an appropriate authority within its administration to be responsible for ensuring compliance with this Annex is proposed to be moved to a new Chapter 3: Provision of information to ICAO. The new chapter is proposed so that all requirements related to providing ICAO with information is in one place.

CHAPTER 3. CLASSIFICATION

~~The classification of an article or substance shall be in accordance with the provisions of the Technical Instructions.~~

~~— Note. — The detailed definitions of the classes of dangerous goods are contained in the Technical Instructions. These classes identify the potential risks associated with the transport of dangerous goods by air and are those recommended by the United Nations Committee of Experts on the Transport of Dangerous Goods.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The intent of this Standard is to ensure anyone preparing a package containing dangerous goods for transport classifies the hazards associated with the dangerous goods in accordance with the Technical Instructions. However, the Standard does not make this clear nor does it make the obligation the Standard places on a State clear. A new Chapter 5 on the safety of the supply chain is proposed which captures the intent and State obligation of this SARP and similar SARPs in current Chapters 5 (Packing), 6 (Labelling and marking) and 7 (Shipper's responsibilities).

CHAPTER 3. PROVISION OF INFORMATION TO ICAO

The following is moved from 2.7:

2.73.1 National authority

Each ~~Contracting~~ State shall designate and specify to ICAO an appropriate national authority within its administration to be responsible for ensuring compliance with this Annex.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	a) Proposed to be moved from Chapter 2 to this chapter so that all SARPs related to providing information to ICAO are in one place. b) Some States have more than one authority responsible for ensuring compliance with this Annex, so “an appropriate authority” is replaced with “the authorities”.

The following is moved from 2.5:

2.53.2 Notification of variations from the Technical Instructions

~~2.5.1~~—Where a ~~Contracting~~ State adopts different provisions from those specified in the Technical Instructions, it shall notify ICAO promptly of such State variations for publication in the Technical Instructions.

Note.— ~~Each Contracting State~~ ~~is~~ is expected to notify a difference to the provisions of ~~2.2.1~~ 2.3.1 and 2.3.2 under Article 38 of the Convention only if they are unable to accept the binding nature of the Technical Instructions. Where States have adopted different provisions from those specified in the Technical Instructions, they are expected to be reported only under the provisions of ~~2.5~~ 3.2.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Proposed to be moved from Chapter 2 to this chapter so that all SARPs related to providing information to ICAO are in one place.

3.3 Difficulties encountered in the application of the Technical Instructions

The following is moved from 2.2.2:

~~2.2.2~~—**Recommendation.**— ~~Each Contracting~~ State should inform ICAO of difficulties encountered in the application of the Technical Instructions and of any amendments which it would be desirable to make to them.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	a) Heading added to differentiate between other sections of this chapter b) Proposed to be moved from Chapter 2 to this chapter so that all SARPs related to providing information to ICAO are in one place.

~~CHAPTER 4. LIMITATION ON THE TRANSPORT OF DANGEROUS GOODS BY AIR~~

The following is moved to 2.4.1:

~~4.1—Dangerous goods permitted for transport by air~~

~~The transport of dangerous goods by air shall be forbidden except as established in this Annex and the detailed specifications and procedures provided in the Technical Instructions.~~

The following is moved to 2.4.2:

~~4.2—Dangerous goods forbidden for transport by air unless exempted~~

~~The dangerous goods described hereunder shall be forbidden on aircraft unless exempted by the States concerned under the provisions of 2.1 or unless the provisions of the Technical Instructions indicate they may be transported under an approval granted by the State of Origin:~~

- ~~— a) dangerous goods that are identified in the Technical Instructions as being forbidden for transport in normal circumstances; and~~
- ~~— b) infected live animals.~~

The following is moved to 2.4.3:

~~4.3—Dangerous goods forbidden for transport by air under any circumstances~~

~~Articles and substances that are specifically identified by name or by generic description in the Technical Instructions as being forbidden for transport by air under any circumstances shall not be carried on any aircraft.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<p>The SARPs currently in Chapter 4 for the limitation on the transport of dangerous goods are moved to Chapter 2 to keep the general regulatory framework for transport of dangerous goods by air in one place.</p> <p>It is proposed that Chapter 4 contain safety management provisions specific to dangerous goods.</p>

CHAPTER 4. STATE SAFETY MANAGEMENT RESPONSIBILITIES

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	A new chapter on State safety management responsibilities specific to dangerous goods is proposed with the aim of ensuring all entities involved with the safe transport of dangerous goods are working towards the level of safety expected in aviation. Having a common understanding of safety presents challenges unique to dangerous goods transport because of the many entities involved, including regulatory authorities and industries outside the aviation system. The chapter is intended to make the fact that transporting dangerous goods is an integral part of the State safety programme required by Annex 19 and to ensure activities necessary to achieve targeted levels of safety specific to dangerous goods that go beyond what Annex 19 requires are covered. The structure of the chapter is based on the components of an SSP so that there are four sections, one for each component.

Note 1.— The provisions for a State Safety Programme (SSP) contained in Chapter 3 to Annex 19 are applicable to this Annex. This chapter of Annex 18 contains specific State safety management responsibilities relevant to the safe transport of dangerous goods by air.

Note 2.— Guidance on an SSP is contained in the Safety Management Manual (SMM) (Doc 9859). Guidance on specific State safety management responsibilities relevant to the safe transport of dangerous goods by air is contained in Doc xxxx.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Authorities involved with the safe transport of dangerous goods by air may not all be part of the aviation sector in some States. The notes are intended to ensure all are aware of the requirements for a State safety programme and the fact that the transport of dangerous goods by air is an integral part of it.

4.1 State safety policy, objectives and resources

Note 1.— See 5.1 for primary aviation legislation applicable to the safe transport of dangerous goods by air.

Note 2.— See 5.2 and 7.1 for specific operating regulations applicable to the safe transport of dangerous goods by air.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	SARPs related to primary aviation legislation and specific operator regulations specific to dangerous goods are proposed for inclusion in Chapter 5. References to these sections in Notes 1 and 2 are proposed for the sake of comprehensiveness.

Note 3.— Guidance on the establishment of authorities or government agencies supported by sufficient and qualified personnel and provided with adequate financial resources for the management of safety specific to dangerous goods is contained in Doc xxxx, Chapter yy.

Note 4.— Guidance on staffing, minimum qualification requirements and training for dangerous goods technical personnel involved in the regulation and oversight of transport of dangerous goods by air is contained in Doc xxxx, yyyy.

Note 5.— Guidance on coordination between appropriate national authorities that could have an impact on the transport of dangerous goods by air is contained in Doc xxxx, yyyy.

Origin:	Rationale:
DGP/29	The SSP elements highlighted by Notes 3 to 4 are covered by the existing SARPs in Annex 19, so there is no need for SARPs specific to dangerous goods. However, they highlight areas that have been identified as needing to be strengthened through safety oversight audits. The notes refer to guidance on how these elements apply to dangerous goods and how they can be established.

4.2 State safety risk management

4.2.1 Approval and exemption obligations

Each State shall implement documented processes and procedures to ensure that individuals and organizations performing an activity related to the transport of dangerous goods by air meet the established requirements before they are allowed to exercise the privileges of an approval or exemption to conduct the relevant dangerous goods activity.

Note.— Guidance on the establishment of documented processes and procedures related to the granting of exemption and approval obligations is contained in Doc xxxx, Chapter yyyy.

Origin:	Rationale:
DGP/29 DGP/27	This Standard is aimed at ensuring States meet their responsibilities with respect to the granting of exemptions and approvals related to the transport of dangerous goods by air. The DGP has identified a need for additional guidance on the issuance of approvals and exemptions, particularly with respect to which entities the approval or exemption should be issued to and the relationship between the shipper, the operator and the State authorities processing them. Ensuring each Contracting State has documented process and procedures and providing guidance to assist them in developing them will help ensure States meet their exemption and approval obligations under Critical element 6.

4.2.2 Safety management system obligations

Note 1.— The transport of dangerous goods by air is included in the scope of the operator's safety management system (SMS).

Note 2.— See Annex 6— Operation of Aircraft, Part I— International Commercial Air Transport — Aeroplanes, Chapter 15 and Part IV— International Operations — Remotely Piloted Aircraft Systems, Chapter 15 for SARPs concerning hazards associated with the transport of items in the cargo compartment, the conduct of a specific safety risk assessment, and the responsibilities for the transport of dangerous goods.

Origin:	Rationale:
DGP/29 DGP/27	The notes are aimed at ensuring the State is aware how safety management system obligations apply to dangerous goods. A new SARP is unnecessary because Note 1 is a statement of fact and Note 2 is covered by the SARPs in Annex 6.

4.2.3 Dangerous goods safety investigations

Moved from 12.1 and 12.2:

~~— 12.1 — With the aim of preventing the recurrence of dangerous goods accidents and incidents, each Contracting State shall establish procedures for investigating and compiling information concerning such accidents and incidents which occur in its territory and which involve the transport of dangerous goods originating in or destined for another State. Reports on such accidents and incidents shall be made in accordance with the detailed provisions of the Technical Instructions.~~

~~— 12.2 **Recommendation.** — With the aim of preventing the recurrence of dangerous goods accidents and incidents, each Contracting State should establish procedures for investigating and compiling information concerning such accidents and incidents which occur in its territory other than those described in 12.1. Reports on such accidents and incidents should be made in accordance with the detailed provisions of the Technical Instructions.~~

4.2.3.1 Each State shall establish a process to investigate dangerous goods accidents and dangerous goods incidents reported in accordance with Chapter 10 in support of the management of safety in the State.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<p>This new Standard replaces the SARPs currently in 12.1 and 12.2 that require each Contracting State to establish procedures for investigating and compiling information concerning dangerous goods accidents and incidents which occur in its territory and involve the transport of dangerous goods originating or destined for another State and to report in accordance with the Technical Instructions and recommends the same when not originating or destined for another State.</p> <p>While accidents and incidents defined in accordance with Annex 13 apply to the operation of an aircraft, dangerous goods accidents and incidents defined in accordance with Annex 18 do not necessarily occur on board an aircraft. This SARP is intended to ensure that dangerous goods accidents or incidents that do not meet the criteria for accidents or incidents defined in Annex 13 are investigated. The investigation of an accident or incident that did not occur on board an aircraft is valuable because it may reveal safety deficiencies that need to be resolved to prevent another accident or incident and to prevent an incident from leading to an accident.</p> <p>The wording of the Standard is revised to:</p> <ul style="list-style-type: none"> a) align with the wording in Annex 19; b) require the establishment of a process to conduct safety investigations for all accidents and incidents involving the transport of dangerous goods that are reported to the State regardless of where they occurred; c) remove the reference to compiling information because this is covered in new Chapter 10 which is proposed to contain provisions related to safety intelligence.

Moved from 12.3:

~~— 12.3 — With the aim of preventing the recurrence of instances of undeclared or misdeclared dangerous goods in cargo, each Contracting State shall establish procedures for investigating and compiling information concerning such occurrences which occur in its territory and which involve the transport of dangerous goods originating in or~~

~~destined for another State. Reports on such instances shall be made in accordance with the detailed provisions of the Technical Instructions.~~

~~— 12.4 **Recommendation.** With the aim of preventing the recurrence of instances of undeclared or misdeclared dangerous goods in cargo, each Contracting State should establish procedures for investigating and compiling information concerning such occurrences which occur in its territory other than those described in 12.3. Reports on such instances should be made in accordance with the detailed provisions of the Technical Instructions.~~

4.2.3.2 Each State shall implement a risk-based process for the investigation of:

- a) occasions when undeclared or misdeclared dangerous goods are discovered in cargo or mail;
- b) occasions when dangerous goods not permitted in passenger or crew baggage are discovered; and
- c) other safety issues.

which are reported in accordance with Chapter 10 in support of the management of safety in the State.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<p>This new Standard replaces the SARPs currently in 12.3 and 12.4 that require each Contracting State to establish procedures for investigating and compiling information concerning occurrences of undeclared or misdeclared dangerous in cargo which occur in its territory and involve the transport of dangerous goods originating or destined for another State and to report in accordance with the Technical Instructions and recommends the same when not originating or destined for another State.</p> <p>The new Standard is revised to:</p> <ul style="list-style-type: none"> a) emphasize the need for the process to be risk-based; b) require the establishment of the risk-based process for all occurrences of undeclared dangerous goods involving the transport of dangerous goods that are reported to the State regardless of where they occurred; c) expand the requirement to dangerous goods discovered in passengers and crew baggage that are not permitted and to other safety issues. d) remove the reference to compiling information because this is covered in new Chapter 10 which is proposed to contain provisions related to safety intelligence. <p>The expansion of the requirement to dangerous goods discovered in passengers and crew baggage is made to reflect a long-standing requirement in the Technical Instructions. Prohibited dangerous goods pose a safety risk if they are carried onboard aircraft by passengers and crew because they are either unaware of or deliberately ignore the requirements. Investigations should be conducted with the aim of reducing the likelihood of prohibited dangerous goods being carried by passengers and crew.</p>

Moved from 11.2:

Recommendation. 4.2.3.3 Each Contracting State shall participate in cooperative efforts with other States concerning conducting dangerous goods safety investigations, as appropriate, with the aim of resolving safety issues and eliminating violations of dangerous goods regulations, with the aim of eliminating such violations. Cooperative efforts could include coordination of investigations and enforcement actions; exchanging information

~~on a regulated party's compliance history; joint inspections and other technical liaisons, exchange of technical staff, and joint meetings and conferences. Appropriate information that could be exchanged include safety alerts, bulletins or dangerous goods advisories; proposed and completed regulatory actions; incident reports; documentary and other evidence developed in the investigation of incidents; proposed and final enforcement actions; and educational/outreach materials suitable for public dissemination.~~

Note 1.— See 10.4 for requirements related to the exchange of information.

Note 2.— Guidance on dangerous goods safety investigations can be found in Doc xxxx, Chapter yy.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Revised to expand beyond violations of dangerous goods regulations to include any safety issue. The cooperation of States when conducting safety investigations of an international nature is critical for the resolution of dangerous goods safety issues. The recommendation is therefore upgraded to a SARP. The text proposed for deletion is not a Standard or a Recommended Practice, but it is helpful so it will be incorporated in the new guidance document to support implementation of Annex 18.

4.2.4 Hazard identification and safety risk assessment

4.2.4.1 Each State shall establish and maintain a process to identify the State's system-level hazards associated with the transport of dangerous goods by air from collected safety data.

4.2.4.2 Each State shall develop and maintain a process that ensures the assessment of safety risks associated with hazards identified under 4.2.4.1.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	See rationale under 4.2.5.

4.2.5 Management of safety risks

4.2.5.1 Dangerous goods transported as cargo or mail

4.2.5.1.1 Each State shall ensure that the mechanism for the resolution of safety issues required by Annex 19 addresses safety risks associated with dangerous goods offered, handled or transported or caused to be offered, handled or transported as cargo or mail by air.

4.2.5.1.2 Each State shall ~~include~~ implement measures with the aim of preventing dangerous goods not in compliance with the Technical Instructions from being transported in cargo or mail ~~as part of their safety risk management activities.~~

4.2.5.1.3 Each State shall implement measures with the aim of ensuring that any entity that offers, handles or transports or causes to be offered, handled or transported dangerous goods in cargo or mail has processes and procedures in place to identify dangerous goods in cargo or mail that are not in compliance with the Technical Instructions and to prevent them from being offered for transport by air or loaded on an aircraft.

4.2.5.2 Dangerous goods carried by passengers or crew

4.2.5.2.1 Each State shall ensure that the mechanism for the resolution of safety issues required by Annex 19 addresses safety risks associated with dangerous goods carried by passengers and crew members.

4.2.5.2.2 Each State shall ~~include~~ implement measures with the aim of preventing passengers and crew members from carrying dangerous goods on board an aircraft which they are not permitted to carry as part of their safety risk management activities.

4.2.5.2.3 Each State shall implement measures with the aim of ensuring that entities handling baggage have processes and procedures in place to recognize dangerous goods not permitted to be carried by passengers and crew members and to prevent them from being carried on an aircraft when they are discovered.

Note.— Guidance on managing safety risks associated with dangerous goods is contained in Docs 10102 and Doc xxxx, Chapter yyyy.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Annex 19 requires that States establish and maintain processes for hazard identification, assessing safety risks and managing safety risks. Hazards introduced throughout the supply chain may pose significant safety risks to aviation. Annex 6 obligates the operator to consider the supply chain in its safety risk management activities. Supply chains impact multiple operators. It is therefore important for the State to assess system-wide hazards and manage system-wide safety risks the aim of improving system-wide safety.

4.3 State safety assurance

Moved from 11.1:

11.1—Inspection systems

~~Each Contracting State shall establish inspection, surveillance and enforcement procedures for all entities performing any function prescribed in its regulations for air transport of dangerous goods with a view to achieving compliance with those regulations.~~

~~— Note 1.— It is envisaged that these procedures would include provisions for:~~

~~— inspecting dangerous goods consignments prepared, offered, accepted or transported by the entities referred to in 11.1;~~

~~— inspecting the practices of the entities referred to in 11.1; and~~

~~— investigating alleged violations (see 11.3).~~

~~— Note 2.— Guidance on dangerous goods inspections and enforcement may be found in the Supplement to the Technical Instructions (Part S 5, Chapter 1 and Part S 7, Chapters 5 and 6).~~

Note.— Guidance on surveillance obligations and State safety performance required by Annex 19 specific to dangerous goods is contained in Doc xxxx, Chapter yyyy.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The current Standard in 11.1 requires inspection, surveillance and enforcement procedures for all entities performing any dangerous goods function prescribed in a State's regulations. Requiring surveillance activities for all these entities is impossible to implement given the vast numbers performing dangerous goods functions and the fact that licence, certification, authorization or approval obligations do not apply to entities other than operators and designated postal operators. Inspection and enforcement procedures are covered by the SARPs for State safety risk management. The note provides guidance which will be incorporated in the new guidance manual. It will be aimed at ensuring the State is aware how Annex 19 surveillance obligations apply to dangerous goods.

4.4 State safety promotion

4.4.1 Dangerous goods transported as cargo or mail

4.4.1.1 Each State shall include activities aimed at preventing the transport of dangerous goods in cargo and mail by air which are not in compliance with the provisions of this Annex and the Technical Instructions in the State safety promotion activities required by Annex 19.

4.4.2 Dangerous goods carried by passengers or crew

4.4.2.1 Each State shall include activities aimed at preventing passengers and crew from carrying dangerous goods which they are forbidden to carry on an aircraft in the State safety promotion activities required by Annex 19.

Note.— See Part 8 of the Technical Instructions for dangerous goods carried by passengers and crew members.

4.4.3 Each ~~Contracting~~ State shall establish ~~measures~~ means to ~~improve~~ promote dangerous goods safety awareness and ~~promote~~ a positive safety culture throughout the supply chain.

Note.— Guidance related to State safety promotion and a positive safety culture specific to the safe transport of dangerous goods by air is contained in Doc xxxx, Chapter yyy.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	State safety promotion specific to dangerous goods is needed for the same reasons it is needed in other aviation sectors. The new SARPs are needed because State safety promotion needs to extend beyond the aviation system. This is essential to the management of safety risks associated with the transport of dangerous goods, particularly the risk of non-compliance with dangerous goods regulations.

CHAPTER 5. PACKING**5.1—General requirements**

~~Dangerous goods shall be packed in accordance with the provisions of this chapter and as provided for in the Technical Instructions.~~

5.2—Packagings

~~— 5.2.1—Packagings used for the transport of dangerous goods by air shall be of good quality and shall be constructed and securely closed so as to prevent leakage which might be caused in normal conditions of transport, by changes in temperature, humidity or pressure, or by vibration.~~

~~— 5.2.2—Packagings shall be suitable for the contents. Packagings in direct contact with dangerous goods shall be resistant to any chemical or other action of such goods.~~

~~— 5.2.3—Packagings shall meet the material and construction specifications in the Technical Instructions.~~

~~— 5.2.4—Packagings shall be tested in accordance with the provisions of the Technical Instructions.~~

~~— 5.2.5—Packagings for which retention of a liquid is a basic function, shall be capable of withstanding, without leaking, the pressure stated in the Technical Instructions.~~

~~— 5.2.6—Inner packagings shall be so packed, secured or cushioned as to prevent their breakage or leakage and to control their movement within the outer packaging(s) during normal conditions of air transport. Cushioning and absorbent materials shall not react dangerously with the contents of the packagings.~~

~~— 5.2.7—No packaging shall be reused until it has been inspected and found free from corrosion or other damage. Where a packaging is reused, all necessary measures shall be taken to prevent contamination of subsequent contents.~~

~~— 5.2.8—If, because of the nature of their former contents, uncleaned empty packagings may present a hazard, they shall be tightly closed and treated according to the hazard they constitute.~~

~~— 5.2.9—No harmful quantity of a dangerous substance shall adhere to the outside of packages.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The provisions in this chapter are details contained in the Technical Instructions. The SARPs are therefore redundant. Packing requirements are now covered more generally by the SARP proposed in new Chapter 5, 5.2.1 b) 3).

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	A new chapter on the safety of the supply chain is proposed to more clearly outline the expectations of States. Current Annex 18 has three separate chapters that address responsibilities of entities involved with preparing and offering dangerous goods for transport. These are: Chapter 3, Classification; Chapter 5, Packing; Chapter 6: Labelling and marking; Chapter 7: Shipper's responsibilities. All of them point to the provisions of the Technical Instructions, with some provisions from the Technical Instructions repeated in the Annex. They do not directly state what is required of the State, and there does not appear to be any rationale for determining what should be repeated and what should simply be referred to. This new chapter clearly defines what is expected of the State, which is to adopt regulations directed at entities in the supply chain preparing, offering and transporting dangerous goods for transport by air. The new chapter lists the functions for which regulations are needed and refers to the applicable parts of the Technical Instructions where the detailed Instructions are found. Listing the functions provides the added benefit of an overview of how the Technical Instructions mitigate risk.

CHAPTER 5. SAFETY OF THE SUPPLY CHAIN

5.1 Primary aviation legislation (CE 1)

Each State shall promulgate laws that enable the oversight and safety management of entities that offer, handle, transport or cause to be offered, handled or transported dangerous goods by air, the resolution of safety issues and the enforcement of regulations through the relevant authorities established for that purpose.

5.2 Specific operating regulations

Each State shall ensure that the establish specific operating regulations required by in accordance with Annex 19 include to require, at a minimum, that:

a) a person does not offer or cause to be offered for transport:

1) articles or substances which are forbidden for transport in accordance with 2.4.3;

2) articles or substances which are forbidden for transport in accordance with 2.4.2 unless permitted by the States concerned through an approval or exemption;

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	4.1.2 a) and b) replaces part of current 7.1.

b) a person does not offer or cause to be offered dangerous goods for transport unless:

1) policies and procedures have been developed and provided to enable them to carry out the function for which they are responsible;

2) associated hazards are identified in accordance with the classification criteria of Part 2 of the Technical Instructions;

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	4.1.2 b) 2) replaces current Chapter 3

3) risks associated with the identified hazards are mitigated at the package level through quantity limitations, packing and packaging requirements in accordance with Parts 3, 4 and 6 of the Technical Instructions;

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	4.1.2 b)3 Replaces part of current 7.1 (Shippers' responsibilities — general requirements) and Chapter 5 (Packing).

4) hazard and handling information are communicated to entities in the supply chain in accordance with the marking, labelling and documentation requirements of Parts 3, 4 and 5 of the Technical Instructions;

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	4.1.2 b) 4) replaces Chapter 6 (Labelling and Marking) and 7.2 (Dangerous goods transport document).

5) documentation is retained in accordance with the Technical Instructions;

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The need for documentation to be retained is required by the detailed provisions of the Technical Instructions. The documentation is evidence of compliance and provides important information for safety investigations.

6) in the case of radioactive material, a radiation protection programme is established in accordance with Part 1:6 of the Technical Instructions;

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The Technical Instructions contain provisions for a radiation protection programme by entities involved with the transport of radioactive material. There was never any reference to this in Annex.

c) operators accept, handle and transport dangerous goods in accordance with Chapter 6;

d) dangerous goods accidents, dangerous goods incidents and occasions when undeclared or misdeclared dangerous goods are discovered are reported in accordance with Chapter 10;

e) training and assessment is conducted in accordance with Chapter 9; and

f) dangerous goods are not offered, caused to be offered or accepted for transport by mail unless specifically permitted in accordance with Chapter 8.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	5.2.1 c), d), e) and f) establish the need for the State to adopt regulations aimed at the operator, reporting, training and assessment and the mail. They refer to the associated SARPs in the Annex.

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CHAPTER 6. LABELLING AND MARKING**6.1—Labels**

Unless otherwise provided for in the Technical Instructions, each package of dangerous goods shall be labelled with the appropriate labels and in accordance with the provisions set forth in those Instructions.

6.2—Markings

— 6.2.1— Unless otherwise provided for in the Technical Instructions, each package of dangerous goods shall be marked with the proper shipping name of its contents and, when assigned, the UN number and such other markings as may be specified in those Instructions.

— 6.2.2— *Specification markings on packagings.* Unless otherwise provided for in the Technical Instructions, each packaging manufactured to a specification contained in those Instructions shall be so marked in accordance with the appropriate provisions of those Instructions and no packaging shall be marked with a packaging specification marking unless it meets the appropriate packaging specification contained in those Instructions.

6.3—Languages to be used for markings

— **Recommendation.** — *In addition to the languages required by the State of Origin and pending the development and adoption of a more suitable form of expression for universal use, English should be used for the markings related to dangerous goods.*

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The provisions in this chapter are details contained in the Technical Instructions. The SARPs are therefore redundant. Labelling and marking requirements are now covered more generally by the SARP proposed in new Chapter 5, 5.2.1 b) 4).

DGP-WG/Annex 18 needs to spend more time on the operator responsibilities chapter to address comments from Secretariat flight operations experts before submitting the amendment for formal coordination to the eleventh meeting of the Flight Operations Panel (FLTOPSP/11, Montréal, 20 to 24 January 2025). It also needs to develop consequential amendments to Annex 6 for submission to FLTOPSP/11. DGP-WG/Annex 18 will meet virtually to complete this work following DGP-WG/24 and will circulate its output to the panel via e-mail for endorsement prior to submission to FLTOPSP.

Origin:	Rationale:
DGP/29	This rational applies to all of Chapter 6. SARPs for the operator responsibilities have been expanded to include more details from the Technical Instructions. The SARPs also differentiate between operators with and without specific approvals to transport dangerous goods as cargo. Including more details in the Annex should allow the State of the Operator to better assess an operator's ability to perform dangerous goods functions through the AOC process and during surveillance activities.

Moved from Chapter 8:

CHAPTER ~~8~~ 6. OPERATOR'S RESPONSIBILITIES

Note 1.— Annex 19 includes safety management provisions for air operators. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).

Note 2.— The carriage of dangerous goods is included in the scope of the operator's safety management system (SMS).

Moved from under 2.1.4, Note 5:

Note ~~5~~ 3.— It is not intended that this Annex be interpreted as requiring an operator to transport a particular article or substance or as preventing an operator from adopting special requirements on the transport of a particular article or substance. It is also not intended to preclude a third party from carrying out some or all of the functions of an operator. However, such third parties are subject to the operator's responsibilities of this chapter.

Origin:	Rationale:
DGP/29	Moved from Chapter 2: Applicability. The note is currently under the provisions for approvals and exemptions, but its application goes beyond these. Moving the note to this chapter makes the provisions for operators more comprehensive.

Note 3.— Each State is required to recognize as valid an air operator certificate issued by another State in accordance with 4.2.2 of Annex 6, Part I, 2.2.2 of Part III — International Operations — Helicopters and 4.2.3 of Part IV. This includes the specific approval to transport dangerous goods as cargo issued by another State.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Moved from Chapter 10: Training programmes. The note currently in Chapter 10 was added to remind States that training programmes were subject to the approval of the State of the Operator and that training programmes of foreign operators were not subject to the State's approval. The existing note simply referenced the applicable Standard in Annex 6. The panel modified the note to describe the Standard and moved it to the operator chapter because it applied to more than training.

6.1 General

6.1.1 The operator shall not transport dangerous goods as cargo unless specifically approved to do so by the State of the Operator in accordance with the applicable provisions of Annex 6.

6.1.3 The operator with a specific approval to transport dangerous goods as cargo that includes the carriage of radioactive material shall ~~implement~~ establish a radiation protection programme in accordance with Part 1.6 of the Technical Instructions.

To be discussed by DGP-WG/Annex 18: Notion of assigning responsibilities in the OPS Manual.

6.2 Dangerous goods components of the Operations Manual

6.2.1 The operator shall provide an operations manual for the use and guidance of flight crew, cabin crew and other personnel concerned that addresses, as applicable, the transport of cargo and mail and the carriage of dangerous goods in passenger and crew baggage in accordance with the appendix to this Annex.

6.2.2 In addition to 6.2.1, an operator with a specific approval to transport dangerous goods as cargo shall provide an operations manual for the use and guidance of flight crew, cabin crew and other employees, that address, as applicable, the carriage of dangerous goods in cargo in accordance with the appendix to this Annex. [The manual shall be amended or revised as is necessary to ensure that the information contained therein is kept up to date. All such amendments or revisions shall be issued to all personnel that are required to use this manual.]

Moved from 8.1:

8.16.3 Acceptance for transport

6.3.1 The operator shall implement procedures aimed at preventing the introduction of undeclared and misdeclared dangerous goods into air transport.

Note.— See 6.10 concerning the reporting of dangerous goods accidents, dangerous goods incidents and instances where undeclared or misdeclared dangerous goods are discovered.

6.3.2 An operator which carries passengers shall implement procedures for the loading of battery-powered mobility aids in accordance with Part 7 of the Technical Instructions.

6.3.3 In addition to 6.3.1, an operator with a specific approval to transport dangerous goods as cargo shall:

a) ~~An operator shall ensure that dangerous goods are not accepted~~ ~~dangerous goods~~ for transport by air:

~~a) 1) unless a document is provided describing the dangerous goods~~ ~~are accompanied by a completed dangerous goods transport document, except where the~~ in the consignment in accordance with the Technical Instructions ~~indicate that such a document is not required;~~ and

- ~~b) 2) until the package, overpack or freight container containing the dangerous goods has been inspected in accordance with the acceptance procedures contained in the Technical Instructions;~~

~~— Note 1. — See Chapter 12 concerning the reporting of dangerous goods accidents and incidents.~~

~~— Note 2. — Special provisions relating to the acceptance of overpacks are contained in the Technical Instructions.~~

8.2—Acceptance checklist

- ~~b) An operator shall develop and use an acceptance checklist as an aid to compliance with the provisions of 8.1 6.3.2 a) in accordance with the Technical Instructions.~~

6.4 Identification of unit load devices containing dangerous goods

An operator with a specific approval to transport dangerous goods shall ensure that unit load devices containing packages of dangerous goods bearing a hazard label are identified in accordance with the Technical Instructions.

Moved to 6.6:

~~8.3—Loading and stowage~~

~~Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be loaded and stowed on an aircraft in accordance with the provisions of the Technical Instructions.~~

8.4.6.5 Inspection for damage or leakage

~~8.4.1 6.5.1 An operator shall ensure that if evidence of damage to or leakage of dangerous goods is found from cargo, mail or baggage on an aircraft or unit load device, the cargo, mail or baggage shall be removed from the aircraft or unit load device.~~

6.5.2 An operator with a specific approval to transport dangerous goods as cargo shall ensure that:

- ~~a) Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be~~ are not placed in a unit load device or loaded on an aircraft unless they have been inspected for evidence of leakage or damage before loading on an aircraft or into a unit load device. Leaking or damaged packages, overpacks or freight containers shall not be loaded on an aircraft;

~~8.4.2 b) A unit load device shall be~~ not be loaded aboard on an aircraft unless the device has been inspected and found free from any evidence of leakage from, or damage to, any dangerous goods contained therein; and

~~8.4.3 Where any package of dangerous goods loaded on an aircraft appears to be damaged or leaking, the operator shall remove such package from the aircraft, or arrange for its removal by an appropriate authority or organization, and thereafter shall ensure that the remainder of the consignment is in a proper condition for transport by air and that no other package has been contaminated.~~

~~8.4.4 c) Packages or overpacks containing dangerous goods and freight containers containing radioactive materials shall be~~ are inspected for signs evidence of damage or leakage upon unloading from

the aircraft or unit load device. ~~If evidence of damage or leakage is found, the area where the dangerous goods or unit load device were stowed on the aircraft shall be inspected for damage or contamination.~~

Moved from 8.6:

8.6.6 Removal of contamination

~~8.6.1~~ An operator shall ensure that:

a) ~~Any hazardous~~ contamination found ~~on an aircraft~~ as a result of leakage or damage to dangerous goods ~~shall be~~ is removed without delay in accordance with the Technical Instructions; and

~~8.6.2~~ b) An aircraft which has been contaminated by radioactive materials shall is immediately be taken out of service and not returned to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.

Note.— The procedures of an operator without a specific approval to transport dangerous goods as cargo are applicable to contamination from the inadvertent transport of undeclared dangerous goods and dangerous goods carried by passengers and crew members.

Moved from 8.3:

8.3.6.7 Loading and stowage

An operator with a specific approval to transport dangerous goods as cargo shall ensure that:

a) ~~P~~packages, ~~and~~ overpacks and unit load devices containing dangerous goods and freight containers containing radioactive materials ~~shall be~~ are loaded ~~and stowed~~ on an aircraft in accordance with the provisions of the Technical Instructions;

Moved from 8.7:

~~8.7.1~~ b) Packages containing dangerous goods which might react dangerously ~~one~~ with one another ~~shall are not be stowed~~ loaded on an aircraft ~~next to each other~~ or in a ~~position that would allow interaction between them~~ unit load device in accordance with the event of leakage Technical Instructions;

~~8.7.2 Packages of toxic and infectious substances shall be stowed on an aircraft in accordance with the provisions of the Technical Instructions.~~

Origin:	Rationale:
DGP/26 AN Min. 209-2	Justification: The Standard in 8.7.2 is no longer necessary as it refers to detailed segregation requirements in the Technical Instructions which no longer exist. Segregation requirements for toxic and infectious substances were removed from the 2015-2016 Edition of the Technical Instructions (see paragraph 2.7.1.1 of the DGP/24 Report). The ANC conducted a final review of the amendment following State consultation. It was pointed out, and recognized by the Commission, that the amendment proposal was administrative in nature and, as such, should be consolidated with other Annex 18 amendment proposals which could imply a later applicability date than the currently indicated 7 November 2019. (AN Min 209-2).

~~— 8.7.3 Packages of radioactive materials shall be stowed on an aircraft so that they are separated from persons, live animals and undeveloped film, in accordance with the provisions in the Technical Instructions.~~

Moved from 8.8:

~~c) When packages containing dangerous goods subject to the provisions contained herein are loaded in an aircraft, the operator shall or in a unit load device are protected the dangerous goods from being damaged, and shall secured such goods in the aircraft in such a manner that will prevent any movement in flight which would change the orientation of the packages. For packages containing radioactive materials, the securing shall be adequate to ensure that the separation requirements of 8.7.3 are met at all times.~~

Moved from 8.9:

~~d) Packages of dangerous goods bearing the “Cargo aircraft only” label shall be are loaded in accordance with the provisions in the Technical Instructions; and~~

~~8.5—Loading restrictions in passenger cabin or on flight deck~~

~~e) Dangerous goods shall are not be carried in an aircraft cabin occupied by passengers or on the flight deck of an aircraft, except in circumstances permitted by the provisions of the Technical Instructions.~~

Moved to 6.5:

~~8.6—Removal of contamination~~

~~— 8.6.1 Any hazardous contamination found on an aircraft as a result of leakage or damage to dangerous goods shall be removed without delay.~~

~~— 8.6.2 An aircraft which has been contaminated by radioactive materials shall immediately be taken out of service and not returned to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.~~

~~8.7—Separation and segregation~~

Moved to 6.6:

~~— 8.7.1 Packages containing dangerous goods which might react dangerously one with another shall not be stowed on an aircraft next to each other or in a position that would allow interaction between them in the event of leakage.~~

~~— 8.7.2 Packages of toxic and infectious substances shall be stowed on an aircraft in accordance with the provisions of the Technical Instructions.~~

~~— 8.7.3 Packages of radioactive materials shall be stowed on an aircraft so that they are separated from persons, live animals and undeveloped film, in accordance with the provisions in the Technical Instructions.~~

~~8.8—Securing of dangerous goods cargo loads~~

Moved to 6.6:

~~When dangerous goods subject to the provisions contained herein are loaded in an aircraft, the operator shall protect the dangerous goods from being damaged, and shall secure such goods in the aircraft in such a manner that will prevent any movement in flight which would change the orientation of the packages. For packages containing radioactive materials, the securing shall be adequate to ensure that the separation requirements of 8.7.3 are met at all times.~~

~~8.9—Loading on cargo aircraft~~

Moved to 6.6:

~~Packages of dangerous goods bearing the “Cargo aircraft only” label shall be loaded in accordance with the provisions in the Technical Instructions.~~

Moved from 9.1:

~~9.16.8~~ **Information to pilot-in-command or remote-pilot-in-command**

~~The operator of an aircraft in which dangerous goods are to be carried shall~~An operator with a specific approval to transport dangerous goods as cargo shall ensure that when an aircraft is to transport dangerous goods as cargo, provide the pilot-in-command or remote-pilot-in-command, as applicable, is provided as early as practicable before departure of the aircraft with ~~written~~ information ~~as specified~~ in accordance with the Technical Instructions.

6.9 Provision of information

6.9.1 The operator shall, with the aim of preventing the entry into transport by air of dangerous goods in cargo that is not in compliance with the Technical Instructions, provide information about the transport of dangerous goods by air in accordance with the Technical Instructions.

6.9.2 The operator shall, with the aim of preventing dangerous goods which passengers are not permitted to carry, ensure that information is provided to passengers warning of the types of dangerous goods which they are forbidden from carrying in accordance with the Technical Instructions.

Moved from 9.2:

~~9.26.10~~ **Information and instructions to flight crew members****Emergency procedures**

6.10.1 The operator shall provide such information in the Operations Manual as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions to crew members as to the action to be taken in the event of an emergency ~~emergency~~ arising involving dangerous goods.

Moved from 9.5:

6.10.2 An operator with a specific approval to transport dangerous goods as cargo shall implement procedures to specify that ~~if~~ an in-flight emergency occurs, the pilot-in-command or remote-pilot-in-command shall, as soon as

the situation permits, inform the appropriate air traffic services unit, for the information of aerodrome authorities, of any dangerous goods on board the aircraft, as provided for in the Technical Instructions.

Moved from 9.6:

9.6.16.10.3 An operator with a specific approval to transport dangerous goods as cargo shall ensure that in the event of:

- a) an aircraft accident; or
- b) a serious incident where dangerous goods carried as cargo may be involved,

the operator of the aircraft carrying dangerous goods as cargo shall provide information information that was provided to the pilot-in-command or remote-pilot-in-command is provided, without delay, to emergency services responding to the accident or serious incident about the dangerous goods on board, as shown on the written information to the pilot-in-command. As soon as possible, the operator shall also provide this information to the appropriate authorities of the State of the Operator and the State in which the accident or serious incident occurred.

9.6.26.10.4 An operator with a specific approval to transport dangerous goods as cargo shall develop and implement procedures to ensure that in the event of an aircraft incident, the operator of an aircraft carrying dangerous goods as cargo shall, if requested to do so, provide the information that was provided to the pilot-in-command or remote-pilot-in-command is provided without delay to emergency services responding to the incident and to the appropriate national authority of the State in which the incident occurred, about the dangerous goods on board, as shown on the written information to the pilot-in-command.

Note.— The terms “accident”, “serious incident” and “incident” are as defined in Annex 13.

6.11 Reporting

The operator shall develop and implement procedures to ensure that:

- a) dangerous goods accidents and dangerous goods incidents;
- b) undeclared and misdeclared dangerous goods discovered in cargo or mail; and
- c) dangerous goods not permitted by the Technical Instructions which are discovered in passenger or crew baggage by the operator, or which the operator is informed of by another entity;

are reported in accordance with 10.1.1.2, 10.1.1.3 and 10.1.1.4.

6.12 Retention of documents

An operator with a specific approval to transport dangerous goods as cargo shall develop and implement procedures to ensure that documents are retained in accordance with the Technical Instructions.

CHAPTER 7. SHIPPER'S RESPONSIBILITIES**7.1—General requirements**

~~Before a person offers any package or overpack of dangerous goods for transport by air, that person shall ensure that the dangerous goods are not forbidden for transport by air and are properly classified, packed, marked, labelled and accompanied by a properly executed dangerous goods transport document, as specified in this Annex and the Technical Instructions.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	This SARP is covered by proposed new 5.2.1 a), 5.2.1 b) 2), 5.2.1 b) 3), 5.2.1 b) 4) and 5.2.1 b) 5)

7.2—Dangerous goods transport document

~~— 7.2.1 Unless otherwise provided for in the Technical Instructions, the person who offers dangerous goods for transport by air shall complete, sign and provide to the operator a dangerous goods transport document, which shall contain the information required by these Instructions.~~

~~— 7.2.2 The transport document shall bear a declaration signed by the person who offers dangerous goods for transport indicating that the dangerous goods are fully and accurately described by their proper shipping names and that they are classified, packed, marked, labelled, and in proper condition for transport by air in accordance with the relevant regulations.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The provisions in 7.2 are details contained in the Technical Instructions. The SARPs are therefore redundant. The dangerous goods transport document is covered by proposed new 5.2.1 b) 4)

7.3—Languages to be used

~~— **Recommendation.** In addition to the languages which may be required by the State of Origin and pending the development and adoption of a more suitable form of expression for universal use, English should be used for the dangerous goods transport document.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	This recommendation is contained in by Part 5, Chapter 4, 4.1.6.3 of the Technical Instructions. It is therefore redundant.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	A new chapter on airport operator's responsibilities is proposed to capture a requirement currently in the Technical Instructions

CHAPTER 7. AIRPORT OPERATOR'S RESPONSIBILITIES

Moved from 9.3:

9.37.1 Provision of information to passengers

Each ~~Contracting~~ State shall ensure that ~~information is~~ the specific operating regulations required by Annex 19 require that airport operators promulgated information in such a manner that passengers are warned ~~as to~~ of the types of dangerous goods which they are forbidden from ~~transporting~~ carrying aboard an aircraft as provided for in ~~the Part 7 of the~~ Technical Instructions.

Note.— Requirements for the operator to provide information to passengers are contained in Chapter 6.

Moved to Chapter 6:

CHAPTER 8.—OPERATOR'S RESPONSIBILITIES

~~— Note 1. Annex 19 includes safety management provisions for air operators. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).~~

~~— Note 2. The carriage of dangerous goods is included in the scope of the operator's safety management system (SMS).~~

8.1—Acceptance for transport

An operator shall not accept dangerous goods for transport by air:

- ~~— a) unless the dangerous goods are accompanied by a completed dangerous goods transport document, except where the Technical Instructions indicate that such a document is not required; and~~
- ~~— b) until the package, overpack or freight container containing the dangerous goods has been inspected in accordance with the acceptance procedures contained in the Technical Instructions.~~

~~— Note 1. See Chapter 12 concerning the reporting of dangerous goods accidents and incidents.~~

~~— Note 2. Special provisions relating to the acceptance of overpacks are contained in the Technical Instructions.~~

8.2—Acceptance checklist

An operator shall develop and use an acceptance checklist as an aid to compliance with the provisions of 8.1.

8.3—Loading and stowage

~~Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be loaded and stowed on an aircraft in accordance with the provisions of the Technical Instructions.~~

8.4—Inspection for damage or leakage

~~— 8.4.1 Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be inspected for evidence of leakage or damage before loading on an aircraft or into a unit load device. Leaking or damaged packages, overpacks or freight containers shall not be loaded on an aircraft.~~

~~— 8.4.2 A unit load device shall not be loaded aboard an aircraft unless the device has been inspected and found free from any evidence of leakage from, or damage to, any dangerous goods contained therein.~~

~~— 8.4.3 Where any package of dangerous goods loaded on an aircraft appears to be damaged or leaking, the operator shall remove such package from the aircraft, or arrange for its removal by an appropriate authority or organization, and thereafter shall ensure that the remainder of the consignment is in a proper condition for transport by air and that no other package has been contaminated.~~

~~— 8.4.4 Packages or overpacks containing dangerous goods and freight containers containing radioactive materials shall be inspected for signs of damage or leakage upon unloading from the aircraft or unit load device. If evidence of damage or leakage is found, the area where the dangerous goods or unit load device were stowed on the aircraft shall be inspected for damage or contamination.~~

~~8.5—Loading restrictions in passenger cabin or on flight deck~~

~~Dangerous goods shall not be carried in an aircraft cabin occupied by passengers or on the flight deck of an aircraft, except in circumstances permitted by the provisions of the Technical Instructions.~~

~~8.6—Removal of contamination~~

~~— 8.6.1—Any hazardous contamination found on an aircraft as a result of leakage or damage to dangerous goods shall be removed without delay.~~

~~— 8.6.2—An aircraft which has been contaminated by radioactive materials shall immediately be taken out of service and not returned to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.~~

~~8.7—Separation and segregation~~

~~— 8.7.1—Packages containing dangerous goods which might react dangerously one with another shall not be stowed on an aircraft next to each other or in a position that would allow interaction between them in the event of leakage.~~

~~— 8.7.2—Packages of toxic and infectious substances shall be stowed on an aircraft in accordance with the provisions of the Technical Instructions.~~

~~— 8.7.3—Packages of radioactive materials shall be stowed on an aircraft so that they are separated from persons, live animals and undeveloped film, in accordance with the provisions in the Technical Instructions.~~

~~8.8—Securing of dangerous goods cargo loads~~

~~When dangerous goods subject to the provisions contained herein are loaded in an aircraft, the operator shall protect the dangerous goods from being damaged, and shall secure such goods in the aircraft in such a manner that will prevent any movement in flight which would change the orientation of the packages. For packages containing radioactive materials, the securing shall be adequate to ensure that the separation requirements of 8.7.3 are met at all times.~~

~~8.9—Loading on cargo aircraft~~

~~Packages of dangerous goods bearing the “Cargo aircraft only” label shall be loaded in accordance with the provisions in the Technical Instructions.~~

CHAPTER 8. TRANSPORT OF DANGEROUS GOODS BY POST

Moved from under 11.4, Note 1.

Note—~~4~~.— In accordance with the Universal Postal Union (UPU) Convention, dangerous goods are not permitted in mail, except as provided for in the Technical Instructions.

8.1 Designated postal operator's responsibilities**8.1.1 A designated postal operator accepting mail into air transport shall:**

- a) establish and maintain a dangerous goods training programme in accordance with Chapter 9;
- b) implement procedures for preventing the introduction of dangerous goods in mail when not in compliance with the provisions of this Annex and the Technical Instructions; and
- c) implement procedures in accordance with Chapter 10 for the reporting of dangerous goods accidents, dangerous goods incidents and occasions when undeclared or misdeclared dangerous goods are discovered in mail offered for air transport.

8.1.2 A designated postal operator that allows dangerous goods in mail shall:

- a) ensure that dangerous goods are only permitted in the mail in accordance with Part 1:2.3 of the Technical Instructions; and
- b) not permit lithium batteries identified in Part 1:2.3 of the Technical Instructions in the mail into air transport unless the civil aviation authority of its State has issued a specific approval.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Current Standard 11.4 requires procedures of designated postal operators for controlling the introduction of dangerous goods in mail into air transport be approved by the civil aviation authority of the State where the mail is accepted. Annex 18 does not require the designated postal operators to do anything. This new SARP outlines what the designated operator needs to do and what the civil aviation authority needs to consider when approving its procedures. It also adds a requirement for procedures for reporting of dangerous goods accidents, dangerous goods incidents and occasions when undeclared or misdeclared dangerous goods offered for air transport are discovered in mail. Data from these reports is necessary for the State's safety risk management activities.

8.1.3 Each State's designated postal operator accepting mail in another State shall comply with the requirements of 8.1.1 and 8.1.2.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The designated postal operator is responsible for its postal operators regardless of where they operate. The civil aviation authority needs to evaluate how the designated postal operator manages its operation in other States when approving the dangerous goods training programme.

Moved from 11.4:

**11.48.2 Approval of procedures for controlling the introduction of
dangerous goods by mail into air transport**

The procedures of a State's designated postal operators ~~for controlling the introduction of dangerous goods in mail into air transport identified in 8.1~~ shall be approved by the State's civil aviation authority ~~of the State where the mail is accepted~~.

Origin:	Rationale:
DGP/29	The wording of the Standard was modified to remove any implication that the State must approve procedures of a foreign designated postal operator operating in its territory.

Current Note 1 is moved to top of this chapter:

~~— Note 1.— In accordance with the Universal Postal Union (UPU) Convention, dangerous goods are not permitted in mail, except as provided for in the Technical Instructions.~~

Note 1.— See Chapter 9 for approval of the designated postal operator's dangerous goods training programme.

~~Note 2.— The Universal Postal Union has established procedures to control the introduction of dangerous goods into air transport through the postal services. The Universal Postal Convention embodies the rules applicable throughout the international postal service and the provisions concerning the letter-post and parcel-post services. The Universal Postal Union (UPU) requires that member countries ensure that their designated postal operators fulfil the obligations arising from the Universal Postal Convention. The Regulations to the Universal Postal Convention contain the rules of application necessary for the implementation of the Universal Postal Convention and reflect the ICAO Standards and Recommended Practices for the transport of dangerous goods in airmail (see the UPU Convention Manual Parcel Post Regulations and Letter Post Regulations).~~

Origin:	Rationale:
DGP/29	Amendments to the note were made to more accurately reflect the role of the Universal Postal Union.

Note 3.— Guidance for approving the procedures established by designated postal operators to control the introduction of dangerous goods into air transport may be found in the Supplement to the Technical Instructions (Part S-1, Chapter 3).

CHAPTER 9. — PROVISION OF INFORMATION

Moved to 6.7:

9.1 — Information to pilot in command

~~The operator of an aircraft in which dangerous goods are to be carried shall provide the pilot in command as early as practicable before departure of the aircraft with written information as specified in the Technical Instructions.~~

Moved to 6.8.1:

9.2 — Information and instructions to flight crew members

~~The operator shall provide such information in the Operations Manual as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.~~

Moved to 7.2:

9.3 — Information to passengers

~~Each Contracting State shall ensure that information is promulgated in such a manner that passengers are warned as to the types of dangerous goods which they are forbidden from transporting aboard an aircraft as provided for in the Technical Instructions.~~

Captured in Chapter 6:

9.4 — Information to other persons

~~Operators, shippers or other organizations involved in the transport of dangerous goods by air shall provide such information to their personnel as will enable them to carry out their responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.~~

9.5 — Information from pilot in command to aerodrome authorities

Moved to 6.8.2:

~~If an in flight emergency occurs, the pilot in command shall, as soon as the situation permits, inform the appropriate air traffic services unit, for the information of aerodrome authorities, of any dangerous goods on board the aircraft, as provided for in the Technical Instructions.~~

Moved to 6.8.3:

9.6—Information in the event of an aircraft accident or incident

~~— 9.6.1 — In the event of:~~

~~— a) — an aircraft accident; or~~

~~— b) — a serious incident where dangerous goods carried as cargo may be involved;~~

~~the operator of the aircraft carrying dangerous goods as cargo shall provide information, without delay, to emergency services responding to the accident or serious incident about the dangerous goods on board, as shown on the written information to the pilot in command. As soon as possible, the operator shall also provide this information to the appropriate authorities of the State of the Operator and the State in which the accident or serious incident occurred.~~

~~— 9.6.2 — In the event of an aircraft incident, the operator of an aircraft carrying dangerous goods as cargo shall, if requested to do so, provide information without delay to emergency services responding to the incident and to the appropriate authority of the State in which the incident occurred, about the dangerous goods on board, as shown on the written information to the pilot in command.~~

~~— Note. — The terms “accident”, “serious incident” and “incident” are as defined in Annex 13.~~

Origin:	<i>Rationale for approach taken in amending the training provisions:</i>
DGP/29	Much of the dangerous goods training provisions currently in the Technical Instructions are proposed for inclusion in Annex 18. It is considered more appropriate to include training provisions in the Annex because the State's oversight responsibilities including the obligation to approve dangerous goods training programmes of the operator and may determine that approval is necessary for other entities in its State as well. Keeping the provisions in the Annex creates more visibility to the State and ensures they are consulted when amendments are proposed.

Moved from Chapter 10:

CHAPTER ~~10~~ **9. TRAINING PROGRAMMES AND ASSESSMENT**

Origin:	<i>Rationale for approach taken in amending the training provisions:</i>
DGP/29	The title is modified to reflect the critical role assessment plays in ensuring personnel are competent to perform their dangerous goods functions.

~~10.1~~ **9.1 Establishment of Dangerous goods training programmes**

Note 1.— A training programme includes elements such as design methodology, assessment, initial and recurrent training, instructor qualifications and competencies, training records, and evaluation of the effectiveness of the training.

Origin:	<i>Rationale for approach taken in amending the training provisions:</i>
DGP/29	The note is moved from the Technical Instructions. It is intended to make it clear that the State needs to consider more than a course syllabus when approving dangerous goods training programmes.

~~Initial and recurrent dangerous goods training programmes shall be established and maintained in accordance with the Technical Instructions.~~ **9.1.1 Each State shall require the establishment and maintenance of a dangerous goods training programme by any entity that:**

a) offers, handles, or transports dangerous goods by air; or

b) causes dangerous goods to be offered, handled, or transported by air.

Origin:	<i>Rationale:</i>
DGP/29	Who requires a dangerous goods training programme is currently established in the Technical Instructions. There have been extensive discussions on the Dangerous Goods Panel on whether training programmes can be required for entities not intending to handle dangerous goods by air. Entities such as freight forwarders play an important role in preventing undeclared dangerous goods from being introduced into the air cargo system, but they can only do this if they know how to identify them. A mandatory requirement for freight forwarders and other entities handling general cargo to be trained was introduced into the 2005-2006 Edition of the Technical Instructions, but some panel members had not

	interpreted the provisions to be mandatory because they referred to guidance. Whether mandating training for entities not intending to handle dangerous goods is feasible globally was raised by the DGP when it was revising the dangerous goods training provisions in the Technical Instructions to support a competency-based approach to training and assessment. Some States did not have oversight authority over entities not performing functions described in the Technical Instructions, so a mandatory requirement was not feasible in those States. However, entities performing functions described in the Technical Instructions are required to be trained in those States regardless of whether they knowingly or unknowingly perform them. The amendment is intended to capture this concept.
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Moved from under 10.2.1:

Note.— ~~A Dangerous goods training programme is required for all operators regardless of whether or not they are approved~~ the operator has been issued a specific approval to transport dangerous goods as cargo in accordance with Annex 6.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Amendments to the note are proposed to refer to the specific approval required by Annex 6 and to specify that it applies to cargo. The need for all operators to have dangerous goods training programmes is established in new 9.1.1, but it is important to maintain this note for the same reason it was added through Amendment 12 to Annex 18. The need for clarification was based on safety oversight audit results that highlighted a lack of awareness of dangerous goods training requirements in relation to operators not approved to carry dangerous goods.

9.1.2 Each State shall require the establishment and maintenance of a dangerous goods training programme by its designated postal operators regardless of whether the designated postal operator allows the introduction of dangerous goods in mail in accordance with Part 1 of the Technical Instructions.

10.2.2 Approval of training programmes

~~10.2.19.2.1 The Dangerous goods training programme for operators~~ appropriate authority of the State of the Operator shall be approved by the appropriate authority of the State of the Operator the operator's dangerous goods training programme.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Editorial revision for the sake of alignment with the wording of other Standards.

Moved from under 10.2.3

Note 2.— ~~See 4.2.2 of Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes for surveillance of operations by a foreign operator, Parts I, III and IV~~ require that States recognize as valid the air operator certificate (AOC) issued by another State provided that the requirements under which the certificate was issued are at least equal to the applicable Standards specified in Annexes 6 and 19. This includes the operator's dangerous goods training programme.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Modified to clarify the intent of the existing note and to add missing references. It has been reported that some States subject foreign operators' training programmes to review and approval despite training programmes only being subject to the approval of the State of the Operator. A reference to the Standard in Annex 6 that specifies that the State shall recognize as valid an air operator certificate issued by another Contracting State was added through Amendment 12 to Annex 18. The expands the note by describing the actual requirement in Annex 6.

Moved to under 9.1.1 as Note 1:

~~— *Note.* Dangerous goods training programmes are required for all operators regardless of whether or not they are approved to transport dangerous goods.~~

~~10.2.29.2.2 The State's civil aviation authority shall approve the D~~dangerous goods training programmes ~~of the State's~~ for designated postal operators ~~shall be approved by the civil aviation authority of the State where the mail is accepted by the designated postal operator.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	<p>Revised to clarify the scope of oversight. Designated postal operators may operate in different States. The wording of the current Standard may imply that the civil aviation authority must approve the training programme of foreign designated postal operators operating in its State.</p> <p>The existing SARP was added to Annex 18 through Amendment 12, along with new Standards in current 11.4, to control the introduction of dangerous goods not permitted in mail from entering the airmail stream. The provisions were intended to provide for stronger relationships between civil aviation and postal authorities. Not specifying the civil aviation authority as the authority required to approve the training programme could result in the designated postal operator approving itself. The civil aviation authority needs to approve the dangerous goods programme because of the unique risks to air transport of which the designated postal operator may not be aware.</p>

~~10.2.39.2.3 Recommendation.~~— Dangerous goods training programmes required for entities other than operators and designated postal operators should be approved as determined by the appropriate national authority *in accordance with its safety risk management activities.*

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Modified to clarify that a risk-based approach to determining whether to approve other entities should be used. The decision will be different among States based on the level of risk posed by specific entities in the State and the size and complexity of the State. Alternate risk mitigating approaches may be more appropriate

~~— *Note 1.* See 11.4 for dangerous goods by mail.~~

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Deleted because provisions for the mail are no longer contained in one area and it would be inconsistent to cross reference provisions for one entity without cross referencing parts of the Annex for others.

Moved to under 9.2.1

~~*Note 2. See 4.2.2 of Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes for surveillance of operations by a foreign operator.*~~

9.3 Competency of personnel

9.3.1 Each State shall require the employer to ensure their personnel are competent to perform any function for which they are responsible prior to performing any of these functions through dangerous goods training and assessment commensurate with the functions for which they are responsible.

9.3.2 Each State shall require the employer to provide initial and recurrent dangerous goods training and assessment in accordance with the Technical Instructions.

9.3.3 Each State shall require the employer to ensure that the competency of personnel is maintained.

9.3.4 Each State shall require the employer to ensure that instructors delivering dangerous goods training are competent in instruction and the function(s) that they will instruct prior to delivering such training.

Note.— An approach to ensuring personnel are competent to perform any function for which they are responsible is provided in Guidance on a Competency-based Approach to Dangerous Goods Training and Assessment (Doc 10147).

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	Moved from the Technical Instructions to make the requirements clear to the State.

9.4 Training and assessment records

9.4.1 Each State shall require the employer to maintain and retain records of training and assessment in accordance with the Technical Instructions.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The SARPs in Section 9.3 are moved from the Technical Instructions. The record of training provides evidence that employees have been trained and assessed as competent to perform their functions. They provide a standardized tool for authorities to use when evaluating training programmes.

Moved to Chapter 9:

CHAPTER 10. — TRAINING PROGRAMMES

Moved to 9.1:

~~10.1 — Establishment of training programmes~~

~~Initial and recurrent dangerous goods training programmes shall be established and maintained in accordance with the Technical Instructions.~~

Moved to 9.2:

~~10.2 — Approval of training programmes~~

~~— 10.2.1 Dangerous goods training programmes for operators shall be approved by the appropriate authority of the State of the Operator.~~

Moved to under 9.1.1:

~~— Note. Dangerous goods training programmes are required for all operators regardless of whether or not they are approved to transport dangerous goods.~~

Moved to 9.2.2:

~~— 10.2.2 Dangerous goods training programmes for designated postal operators shall be approved by the civil aviation authority of the State where the mail is accepted by the designated postal operator.~~

Moved to 9.2.3:

~~— 10.2.3 **Recommendation.** Dangerous goods training programmes required for entities other than operators and designated postal operators should be approved as determined by the appropriate national authority.~~

~~— Note 1. See 11.4 for dangerous goods by mail.~~

Moved to under 9.2.1:

~~— Note 2. See 4.2.2 of Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes for surveillance of operations by a foreign operator.~~

DGP-WG/Annex 18 needs to spend more time on dangerous goods safety intelligence before submitting the amendment for formal coordination to the seventh meeting of the Safety Management Panel (SMP/7, virtually on 4 and 5 December 2024 and in Montréal from 10 to 13 December 2024). Work with Secretariat safety management experts will be undertaken to ensure the amendment aligns with amendments to Annex 19 that will be submitted to the ANC for final review in February. DGP-WG/Annex 18 will meet virtually following DGP-WG/24 and will circulate its output to the panel via e-mail for endorsement prior to submission to SMP.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	This rationale applies to all of Chapter 10. Chapter 10 replaces reporting and investigation provisions currently contained in Chapter 12. It expands upon the safety data and safety information collection, analysis, protection, sharing and exchange SARPs contained in Chapter 5 of Annex 19 to apply specifically to dangerous goods.

CHAPTER 10. DANGEROUS GOODS SAFETY INTELLIGENCE

Note.— In addition to the provisions of this chapter, other provisions relative to the promotion of dangerous goods accident and incident prevention by collection and analysis of safety data and by a prompt exchange of safety information, as part of the State safety programme (SSP), are included in Annex 19 — Safety Management and, to this effect, are applicable to this Annex. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).

10.1 Safety data collection and processing systems

The State shall ensure its safety data collection and processing systems (SDCPS) capture, store, aggregate and enable the analysis of dangerous goods safety data and dangerous goods safety information in accordance with Annex 19, 5.1.

Note 1.— Within the context of this Annex, SDCPS refers to processing and reporting systems, safety databases, schemes for exchange of information, and recorded information including but not limited to:

- a) data and information related to safety investigations by State authorities, operators or other entities involved with the transport of dangerous goods by air;*
- b) mandatory safety reporting systems as indicated in 5.1.2 of Annex 19 and 10.1.1 of this Annex; and*
- c) voluntary safety reporting systems as indicated in 5.1.3 of Annex 19 and 10.1.2 of this Annex.*

Note 2.— Guidance related to SDCPS is contained in the Safety Management Manual (SMM) (Doc 9859) and the [DG guidance material].

10.1.1 Mandatory safety reporting system

10.1.1.1 States shall include reporting of dangerous goods accidents, dangerous goods incidents and occasions when undeclared or misdeclared dangerous goods are discovered as part of their mandatory safety reporting systems in accordance with the provisions of Annex 19.

10.1.1.2 States' mandatory reporting systems shall include a requirement for the operator to report dangerous goods accidents and dangerous goods incidents to the appropriate national authority of the State in which they occurred and to the State of the Operator.

10.1.1.3 States' mandatory reporting systems shall include a requirement for the operator to report occasions when undeclared or misdeclared dangerous goods are discovered in cargo or mail to the appropriate national authority of the State in which they were discovered and the State of the Operator.

10.1.1.4 States' mandatory reporting systems shall include a requirement for the operator to report occasions when dangerous goods not permitted to be carried by passengers or crew members are discovered by the operator, or the operator is advised by the entity that discovers the dangerous goods, either in the baggage or on the person, of passengers or crew members to the appropriate national authority of the State in which this occurred.

Note.— Dangerous goods permitted to be carried by passengers and crew members are provided in Part 8 of the Technical Instructions.

10.1.1.5 States' mandatory reporting systems shall include a requirement for its designated operators to report dangerous goods accidents, dangerous goods incidents and occasions when dangerous goods which do not comply with the provisions of this Annex and the Technical Instructions are discovered in mail offered for air transport.

10.1.1.6 **Recommendation.**— States' mandatory reporting systems should include a requirement for entities other than operators to report dangerous goods accidents and dangerous goods incidents to the appropriate national authority of the State in which they occurred.

10.1.1.7 **Recommendation.**— States' mandatory reporting systems should include a requirement for entities other than operators to report occasions when undeclared or misdeclared dangerous goods are discovered to the appropriate national authority of the State in which they were discovered.

10.1.2 Voluntary safety reporting system

10.1.2.1 States shall establish a voluntary dangerous goods safety reporting system to collect safety data and safety information from operators that is not captured by mandatory safety reporting systems in accordance with Annex 19, 5.1.

10.1.2.2 **Recommendation.**— States should establish a voluntary dangerous goods safety reporting system to collect safety data and safety information from entities other than operators, not captured by mandatory reporting systems in accordance with Annex 19, 5.1.

10.2 Safety data and safety information analysis

States shall establish and maintain a process to analyse the dangerous goods safety data and dangerous goods safety information from the SDCPS and associated safety databases in accordance with Annex 19, 5.2.

10.3 Safety data and safety information protection

10.3.1 States shall accord protection to dangerous goods safety data captured by, and dangerous goods safety information derived from, voluntary safety reporting systems and related sources in accordance with Annex 19, 5.3.

10.3.2 **Recommendation.**— States should extend the protection referred to in 10.3.1 to safety data captured by, and safety information derived from, mandatory dangerous goods safety reporting system and related sources in accordance with Annex 19, 5.3.

10.4 Safety information sharing and exchange

10.4.1 The State shall share and exchange dangerous goods safety information in accordance with Annex 19, 5.4.

10.4.2 If a State, in the analysis of the dangerous goods information contained in its safety data collection and processing system (SDCPS), identifies safety issues which may pose an unacceptable risk to the global aviation safety system, that State shall forward such safety information to ICAO with a minimum of delay.

Note 1.— Provisions for a SDCPS and safety information sharing and exchange between States are included in Annex 19. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).

Note 2.— Whenever practicable, the safety information sent to ICAO is to be prepared in one of the working languages of the Organization.

10.4.3 States shall provide ICAO with dangerous goods information from their SDCPS upon request to address global safety issues related to the transport of dangerous goods by air.

10.4.4 States shall participate in cooperative efforts with other States to eliminate unsafe practices and non-compliance with the Technical Instructions.

10.4.5 States' cooperative efforts shall include coordination of investigations of dangerous goods accidents and dangerous goods incidents, identified safety issues related to the transport of dangerous goods by air, non-compliance with the Technical Instructions and enforcement actions.

CHAPTER 11.—COMPLIANCE

Moved to

11.1—Inspection systems

~~Each Contracting State shall establish inspection, surveillance and enforcement procedures for all entities performing any function prescribed in its regulations for air transport of dangerous goods with a view to achieving compliance with those regulations.~~

~~— Note 1.— It is envisaged that these procedures would include provisions for:~~

~~— inspecting dangerous goods consignments prepared, offered, accepted or transported by the entities referred to in 11.1;~~

~~— inspecting the practices of the entities referred to in 11.1; and~~

~~— investigating alleged violations (see 11.3).~~

~~— Note 2.— Guidance on dangerous goods inspections and enforcement may be found in the Supplement to the Technical Instructions (Part S-5, Chapter 1 and Part S-7, Chapters 5 and 6).~~

11.2—Cooperation between States

Moved to 3.2.3.2:

~~— Recommendation.— Each Contracting State should participate in cooperative efforts with other States concerning violations of dangerous goods regulations, with the aim of eliminating such violations. Cooperative efforts could include coordination of investigations and enforcement actions; exchanging information on a regulated party's compliance history; joint inspections and other technical liaisons; exchange of technical staff; and joint meetings and conferences. Appropriate information that could be exchanged include safety alerts, bulletins or dangerous goods advisories; proposed and completed regulatory actions; incident reports; documentary and other evidence developed in the investigation of incidents; proposed and final enforcement actions; and educational/outreach materials suitable for public dissemination.~~

11.3—Penalties

~~— 11.3.1— Each Contracting State shall take such measures as it may deem appropriate to achieve compliance with its dangerous goods regulations including the prescription of appropriate penalties for violations.~~

~~— 11.3.2— Recommendation.— Each Contracting State should take appropriate action to achieve compliance with its dangerous goods regulations, including the prescription of appropriate penalties for violations, when information about a violation is received from another Contracting State, such as when a consignment of dangerous goods is found not to comply with the requirements of the Technical Instructions on arrival in a Contracting State and that State reports the matter to the State of Origin.~~

Origin:	Rationale:
DGP/29	

Moved to Chapter 7:

~~11.4 Dangerous goods by mail~~

~~The procedures of designated postal operators for controlling the introduction of dangerous goods in mail into air transport shall be approved by the civil aviation authority of the State where the mail is accepted.~~

~~— Note 1. — In accordance with the Universal Postal Union (UPU) Convention, dangerous goods are not permitted in mail, except as provided for in the Technical Instructions.~~

~~— Note 2. — The Universal Postal Union has established procedures to control the introduction of dangerous goods into air transport through the postal services (see the UPU Parcel Post Regulations and Letter Post Regulations).~~

~~— Note 3. — Guidance for approving the procedures established by designated postal operators to control the introduction of dangerous goods into air transport may be found in the Supplement to the Technical Instructions (Part S 1, Chapter 3).~~

~~CHAPTER 12. DANGEROUS GOODS ACCIDENT AND INCIDENT REPORTING~~

Moved partly to 3.2.3 and partly to 10.1.1.2:

~~12.1 With the aim of preventing the recurrence of dangerous goods accidents and incidents, each Contracting State shall establish procedures for investigating and compiling information concerning such accidents and incidents which occur in its territory and which involve the transport of dangerous goods originating in or destined for another State. Reports on such accidents and incidents shall be made in accordance with the detailed provisions of the Technical Instructions.~~

~~— 12.2 **Recommendation.** With the aim of preventing the recurrence of dangerous goods accidents and incidents, each Contracting State should establish procedures for investigating and compiling information concerning such accidents and incidents which occur in its territory other than those described in 12.1. Reports on such accidents and incidents should be made in accordance with the detailed provisions of the Technical Instructions.~~

~~— 12.3 With the aim of preventing the recurrence of instances of undeclared or misdeclared dangerous goods in cargo, each Contracting State shall establish procedures for investigating and compiling information concerning such occurrences which occur in its territory and which involve the transport of dangerous goods originating in or destined for another State. Reports on such instances shall be made in accordance with the detailed provisions of the Technical Instructions.~~

~~— 12.4 **Recommendation.** With the aim of preventing the recurrence of instances of undeclared or misdeclared dangerous goods in cargo, each Contracting State should establish procedures for investigating and compiling information concerning such occurrences which occur in its territory other than those described in 12.3. Reports on such instances should be made in accordance with the detailed provisions of the Technical Instructions.~~

CHAPTER ~~13~~ 11. DANGEROUS GOODS SECURITY PROVISIONS

11.1 Each ~~Contracting~~ State shall establish dangerous goods security measures, applicable to ~~shippers, operators and other individuals~~ entities in the supply chain engaged in the transport of dangerous goods by air, ~~to be taken~~ to minimize theft or misuse of dangerous goods that may endanger persons, property or the environment. These measures should be commensurate with security provisions specified in other Annexes and the Technical Instructions.

<i>Origin:</i>	<i>Rationale:</i>
DGP/29	The current reference to “other individuals” is ambiguous. Referring to “entities in the supply chain” covers the specific entities currently referred to and “other individuals” more clearly.

APPENDIX. CONTENTS OF A DANGEROUS GOODS MANUAL

1. The operations or other appropriate manual provided in accordance with Chapter 6, 6.2.1 shall contain policies and procedures aimed at ensuring:

- a) undeclared and misdeclared dangerous goods are identified and prevented from being transported as cargo or carried by passengers and crew members;

Note.— This includes operator material classified as dangerous goods.

- b) information on the transport of dangerous goods is displayed at cargo acceptance areas in accordance with the Technical Instructions;
- c) passengers and crew members are prevented from carrying dangerous goods either as or in carry-on baggage, as or in checked baggage, or on their person unless the dangerous goods are permitted in accordance with Part 8 of the Technical Instructions;
- d) information is provided to passengers in accordance with Part 7 of the Technical Instructions;
- e) the reporting requirements of 6.10 are fulfilled;
- f) all personnel, including third-party personnel, involved in the acceptance, handling, loading and unloading of cargo, mail, passenger and crew baggage are informed of the operator's limitations with regard to the transport of dangerous goods;
- g) articles and substances intended as replacements for those described in 2.2.2 or which have been removed for replacement are carried in accordance with this Annex and the detailed provisions of the Technical Instructions by an operator with specific approval to transport dangerous goods as cargo.

2 In addition to 1. above, an operator with a specific approval to transport dangerous goods shall ensure that the operations manual provided in accordance with Chapter 6, 6.2.2 contains policies and procedures aimed at ensuring:

- a) that all personnel, including third-party personnel, involved in the acceptance, handling, loading and unloading of cargo, mail, passenger and crew baggage are informed of the operator's specific approvals [and limitations] with regard to the transport of dangerous goods;
- b) when applicable, a radiation protection programme is implemented in accordance with the Technical Instructions.

APPENDIX B

PROPOSED AMENDMENTS TO THE TECHNICAL INSTRUCTIONS

Part 1

GENERAL

...

Chapter 1

SCOPE AND APPLICABILITY

...

1.1 GENERAL APPLICABILITY

...

See paragraph 4.3.4 of this report:

1.1.5 General exceptions

1.1.5.1 Except for 7;4.2, these Instructions do not apply to dangerous goods carried by an aircraft where the dangerous goods are:

- a) to provide, during flight, medical aid to a patient or to preserve blood or blood components for the purpose of transfusion or tissues or organs intended for use in transplantation when those dangerous goods:

- 1) have been placed on board with the approval of the operator; or
- 2) form part of the permanent equipment of the aircraft when it has been adapted for specialized use;

providing that:

- 1) gas cylinders have been manufactured specifically for the purpose of containing and transporting that particular gas;
- 2) equipment containing wet cell batteries is kept and, when necessary, secured in an upright position to prevent spillage of the electrolyte;
- 3) lithium metal or lithium ion cells or batteries meet the provisions of 2;9.3 and spare lithium batteries are individually protected so as to prevent short circuits when not in use;

Note.— For dangerous goods that passengers are permitted to carry as medical aid, see 8;1.1.2.

...

See paragraph 4.4.3 of this report:

- i) data loggers and cargo-tracking devices with installed lithium or sodium ion batteries, attached to or placed in packages, overpacks or unit load devices, provided the following conditions are met:

- 1) the data loggers or cargo-tracking devices must be in use or intended for use during transport;
- 2) each cell or battery must meet the provisions of either Part 2;9.3 a), e), f) (if applicable) and g) or Part 2;9.4 a) and e);

- 3) for a lithium ion or sodium ion cell, the Watt-hour rating not exceeding 20 Wh;
- 4) for a lithium ion or sodium ion battery, the Watt-hour rating not exceeding 20 Wh;
- 5) for a lithium metal cell, the lithium content not exceeding 1 g;
- 6) for a lithium metal battery, the aggregate lithium content not exceeding 1 g;
- 7) the number of data loggers or cargo-tracking devices in or on any package or overpack must be no more than the number required to track or to collect data for the specific consignment;
- 8) the data loggers or cargo-tracking devices must be capable of withstanding the shocks and loadings normally encountered during transport;
- 9) the devices must not be capable of generating a dangerous evolution of heat; and
- 10) the devices must meet defined standards for electromagnetic radiation to ensure that the operation of the device does not interfere with aircraft systems.

Note.— This exception does not apply where the data loggers or cargo-tracking devices are offered for transport as a consignment in accordance with Packing Instruction 967-~~or~~, 970 or 978.

Part 3

DANGEROUS GOODS LIST,
SPECIAL PROVISIONS AND
LIMITED AND EXCEPTED QUANTITIES

...

Chapter 2

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

...

Table 3-1. Dangerous Goods List

Name	UN No.	Class or division	Sub-sidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4		6	7	8	9	10	11	12	13

...

See paragraph 4.1.2.4 of this report:

Battery-powered equipment	3171	9		Miscellaneous		A67 A87 A94 A154 A182 A199 A214		E0	952	No limit	952	No limit
---------------------------	------	---	--	---------------	--	---	--	----	-----	----------	-----	----------

...

Battery-powered vehicle	3171	9		Miscellaneous		A67 A87 A94 A154 A199 A214		E0	952	No limit	952	No limit
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...

Chapter 3

SPECIAL PROVISIONS

...

Table 3-2. Special provisions

TIs UN

See paragraph 4.1.2.5 of this report:

A214 (388) UN No. 3166 entries apply to vehicles powered by flammable liquid or flammable gas internal combustion engines or fuel cells.

...

Examples of equipment are lawnmowers, cleaning machines or model boats and model aircraft. Equipment powered by lithium metal batteries~~or~~, lithium ion batteries or sodium ion batteries must be assigned to UN 3091 **Lithium metal batteries contained in equipment** or UN 3091 **Lithium metal batteries packed with equipment** or UN 3481 **Lithium ion batteries contained in equipment** or UN 3481 **Lithium ion batteries packed with equipment** or UN 3552 Sodium ion batteries contained in equipment or UN 3552 Sodium ion batteries packed with equipment, as appropriate. Lithium ion batteries or lithium metal batteries installed in a cargo transport unit and designed only to provide power external to the cargo transport unit must be assigned to UN 3536 **Lithium batteries installed in cargo transport unit**.

Part 7

OPERATOR'S RESPONSIBILITIES

...

Chapter 2

STORAGE AND LOADING

...

See paragraph 4.2.2.2 of this report:

Table 7-2. Separation of explosive substances and articles

<i>Division and compatibility group</i>	1.3C	1.3G	1.4B	1.4C	1.4D	1.4E	1.4G	1.4S
1.3C		<u>x</u>	x				<u>x</u>	
1.3G	<u>x</u>		x	<u>x</u>	<u>x</u>	<u>x</u>		
1.4B	x	x		x	x	x	x	
1.4C		<u>x</u>	x				<u>x</u>	
1.4D		<u>x</u>	x				<u>x</u>	
1.4E		<u>x</u>	x				<u>x</u>	
1.4G	<u>x</u>		x	<u>x</u>	<u>x</u>	<u>x</u>		
1.4S								

An "x" at the intersection of a row and column indicates that explosives of these divisions and compatibility groups must be loaded into separate unit load devices and, when stowed aboard the aircraft, the unit load devices must be separated by other cargo with a minimum separation distance of 2 m. When not loaded in a unit load device, these explosives must be loaded into different, non-adjacent loading positions and separated by other cargo with a minimum separation distance of 2 m.

...

See paragraph 4.1.2.2 of this report:

2.15 HANDLING AND LOADING OF INTERMEDIATE BULK CONTAINERS (IBCs)

During handling and loading of intermediate bulk containers (IBCs), account must be taken of the IBC markings specified in 6;~~2.4.3~~8.1.3, if present.

...

See paragraph 4.2.2.3 of this report:

Chapter 4

PROVISION OF INFORMATION

...

4.1 INFORMATION TO THE PILOT-IN-COMMAND

...

4.1.1.1 Except as otherwise provided, the information required by 4.1.1 must include the following:

...

f) the number of packages and their exact loading location. For radioactive material see [g\)](#) [h\)](#) below;

...

See paragraph 4.2.2.5 of this report:

...

4.1.3 For UN 3480 (**Lithium ion batteries**)~~and~~, UN 3090 (**Lithium metal batteries**)~~and~~ UN 3551 (**Sodium ion batteries**), the information required by 4.1.1 may be replaced by the UN number, proper shipping name, class, total quantity at each specific loading location, the aerodrome at which the package(s) is to be unloaded and whether the package must be carried on cargo aircraft only. UN 3480 (**Lithium ion batteries**)~~and~~, UN 3090 (**Lithium metal batteries**)~~and~~ UN 3551 (**Sodium ion batteries**) carried under a State exemption must meet all of the requirements of 4.1.

APPENDIX C

PROPOSED AMENDMENTS TO THE SUPPLEMENT TO THE TECHNICAL INSTRUCTIONS

Part S-3

DANGEROUS GOODS LIST,
SPECIAL PROVISIONS AND QUANTITY LIMITATIONS

(ADDITIONAL INFORMATION
FOR PART 3 OF THE
TECHNICAL INSTRUCTIONS)

...

See paragraph 4.3.6 of this report:

Name	UN No.	Class or division	Sub-sidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4		6	7	8	9	10	11	12	13
Articles containing flammable liquid, n.o.s.*	3540	3	See 2;0.6	Liquid flam-mable		A2 A88 A333	I	E5	FORBIDDEN		(378 379)	(60 L)

...

Part S-4

PACKING INSTRUCTIONS

(ADDITIONAL INFORMATION FOR PART 4 OF THE TECHNICAL INSTRUCTIONS)

...

Packing Instruction 221

Cargo aircraft only for UN 3537 and UN 3538 only

General requirements

Part 4;1.1.1, 4;1.1.3, 4;1.1.12 and 4;2 requirements must be met.

See paragraph 4.3.6 of this report:

This entry applies to articles which do not have an existing proper shipping name and ~~which contain only dangerous goods permitted under Part 3;4.1.2 of the Technical Instructions, and exceed both the quantity limits for UN 3363 as prescribed in Special Provision A107 and the quantity limits permitted by Special Provision 301 of the UN Model Regulations~~ which do not comply with the conditions as prescribed either in Part 2; 6.0.a) or in Part 2;6.0 b).

...

...

Packing Instruction 379

Cargo aircraft only for UN 3540 only

General requirements

Part 4;1.1.1, 4;1.1.3, 4;1.1.12 and 4;2 requirements must be met.

See paragraph 4.3.6 of this report:

This entry applies to articles which do not have an existing proper shipping name and ~~which contain only dangerous goods permitted under Part 3;4.1.2 of the Technical Instructions, and exceed both the quantity limits for UN 3363 as prescribed in Special Provision A107 and the quantity limits permitted by Special Provision 301 of the UN Model Regulations~~ which do not comply with the conditions as prescribed either in Part 2; 6.0.a) or in Part 2;6.0 b).

...

...

...

Packing Instruction 400

Cargo aircraft only for UN 3541 only

General requirements

Part 4;1.1.1, 4;1.1.3, 4;1.1.12 and 4;2 requirements must be met.

See paragraph 4.3.6 of this report:

This entry applies to articles which do not have an existing proper shipping name and ~~which contain only dangerous goods permitted under Part 3;4.1.2 of the Technical Instructions, and exceed both the quantity limits for UN 3363 as prescribed in Special Provision A107 and the quantity limits permitted by Special Provision 301 of the UN Model Regulations~~ which do not comply with the conditions as prescribed either in Part 2; 6.0.a) or in Part 2;6.0 b).

...

...

Packing Instruction 600

Cargo aircraft only for UN 3546 only

General requirements

Part 4;1.1.1, 4;1.1.3, 4;1.1.12 and 4;2 requirements must be met.

See paragraph 4.3.6 of this report:

This entry applies to articles which do not have an existing proper shipping name and ~~which contain only dangerous goods permitted under Part 3;4.1.2 of the Technical Instructions, and exceed both the quantity limits for UN 3363 as prescribed in Special Provision A107 and the quantity limits permitted by Special Provision 301 of the UN Model Regulations~~ which do not comply with the conditions as prescribed either in Part 2; 6.0.a) or in Part 2;6.0 b).

...

...

Packing Instruction 877

Cargo aircraft only for UN 3547 only

General requirements

Part 4;1.1.1, 4;1.1.3, 4;1.1.12 and 4;2 requirements must be met.

See paragraph 4.3.6 of this report:

This entry applies to articles which do not have an existing proper shipping name and ~~which contain only dangerous goods permitted under Part 3;4.1.2 of the Technical Instructions, and exceed both the quantity limits for UN 3363 as prescribed in Special Provision A107 and the quantity limits permitted by Special Provision 301 of the UN Model Regulations~~ which do not comply with the conditions as prescribed either in Part 2; 6.0.a) or in Part 2;6.0 b).

...

...

Packing Instruction 973

Cargo aircraft only for UN 3548 only

General requirements

Part 4;1.1.1, 4;1.1.3, 4;1.1.12 and 4;2 requirements must be met.

See paragraph 4.3.6 of this report:

This entry applies to articles which do not have an existing proper shipping name and ~~which contain only dangerous goods permitted under Part 3;4.1.2 of the Technical Instructions, and exceed both the quantity limits for UN 3363 as prescribed in Special Provision A107 and the quantity limits permitted by Special Provision 301 of the UN Model Regulations~~ which do not comply with the conditions as prescribed either in Part 2; 6.0.a) or in Part 2;6.0 b).

...

...

APPENDIX D

SUMMARIZED OUTCOME OF DISCUSSIONS

WP No.	FL No.	IP No.	Title	Presented by	Comments
1			Clarification of the Exceptions for Carriage of Medical Devices and Batteries for Personal Use	Dangerous Goods Advisory Council (DGAC)	Discussed. Potential proposal for DGP-WG/25 or DGP/30. See para 4.3.1 of this report.
2			Separation of Explosive Substances and Articles	the Dangerous Goods Advisory Council (DGAC)	Agreed. To be corrected in 2025-2026 Edition through a corrigendum. See para 4.2.2.2 of this report.
3			Implementation of the SAE Performance-Based Packaging Standard for Lithium Batteries	D. Pfund	Discussed. See para 4.4.1 of this report.
4			New Special Provision for UN 1544 – Alkaloids, Solid, n.o.s. or Alkaloid Salts, Solid, n.o.s.	D. Sylvestre	Not supported as proposed. Revised proposal for DGP-WG/25. See para 4.3.2 of this report.
5			Duplication of Definitions	D. Sylvestre	Not supported as proposed. Need to research prior decisions of the panel. New proposal for DGP-WG/25. See para 4.1.2.1 of this report.
6			Recommended Change to the Operations Specifications Template	D. Sylvestre	Support in principle, more research needed. New proposal for DGP-WG/25. See para 4.8.1 of this report).

WP No.	FL No.	IP No.	Title	Presented by	Comments
7			New Requirement for Combination Packagings Having Inner Packaging Containing Liquid Dangerous Goods	D. Sylvestre	Withdrawn. See para 4.3.3 of this report.
8			Lithium Battery(ies) that Remain Installed in Mobility Aids	T. Muller and M. Ranito	Discussed. Ad hoc working group to develop recommendations. See para 4.4.2 of this report.
9			Proposed Amendment to Delete the Definitions of Passenger Aircraft and Cargo Aircraft	S. Schwartz	Not supported. New proposal for DGP-WG/25. See para 4.8.2 of this report.
10			Inclusion of Blood and Blood Components Under the General Exceptions	S. Bitossi	Amended proposal agreed. Potentially new proposal at DGP-WG/25 to generalize the list. See para 4.3.4 of this report.
11			Pressure Differential Requirements Applicable to Packagings Containing Radioactive Material	S. Bitossi	Supported in principle, needs more consideration. New proposal for DGP-WG/25. See para 4.3.5 of this report.
12			Exceptions – Data Loggers	B. Firkins	Agreed, subject to editorial revision to incorrect reference in note. See para 4.4.3 of this report.
13			Incorrect Reference to IBC Markings In Part 7;2.15	S. Bitossi	Agreed. To be corrected in 2025-2026 Edition through a corrigendum. See para 4.1.2.2 of this report.
14			Incorrect Reference for Radioactive Material Packages and Loading Location on NOTOC	S. Bitossi	Agreed. To be corrected in 2025-2026 Edition through a corrigendum. See para 4.2.2.3 of this report.

WP No.	FL No.	IP No.	Title	Presented by	Comments
15			Packing Instructions for Articles Containing Dangerous Goods UN 3537, UN 3538, UN 3540, UN 3541, UN 3546, UN 3547 & UN 3548	T. Muller	Agreed. See para 4.3.6 of this report.
16			Transport of Illicit Substances Under Chain of Custody by Law Enforcement Agencies	S. Bitossi	Support for intent. New proposal for DGP-WG/25. See para 4.3.7.
17			Proposed Amendment to the Specifications in Annex 18 and the Technical Instructions Requiring the Operator to Provide Information to Emergency Services and States Concerned in the Event of an Aircraft Accident or Incident	S. Schwartz	Supported in principle, but more work needed to ensure to ensure original reasons for wording are not lost. To be considered by DGP-WG/Annex 18. See para 4.2.1.1 of this report.
18			Procedures for the Classification of Explosives	E. Gillett	General support for continued discussion and closing any safety gaps. Any revisions would need to be submitted and agreed by the UN Sub-Committee first. See para 4.1.2.3 of this report.

WP No.	FL No.	IP No.	Title	Presented by	Comments
19			Proposed Amendment to Special Provision A214 to include Nickel Metal Hydride Batteries	B. Firkins	Revised proposal for UN Sub-Committee based on discussions. New proposal based on discussions to add A199 to Table 3-1 for UN 3171. No objections, but more time needed to consider unintended consequences. Proposed addition to Table 3-1 in square brackets. See para 4.1.2.4 of this report.
20			Guidance on the Development of State Variations	B. Firkins	Support for development of guidance material, keeping in mind a State's right to publish variations as they choose. Several members offered support in the drafting of the guidance material. See para 4.3.8 of this report.
21 & Corr.			Clarification of a ULD with Fire Detection/Suppression System	B. Firkins	Discussed. Job card to be developed. See para 4.2.2.4 of this report.
22			Special Provision A214 – Equipment Containing Sodium Ion Batteries	B. Firkins	Agreed. Secretary to propose same amendment to UN Model Regulations if not already done. See para 4.1.2.5 of this report.

WP No.	FL No.	IP No.	Title	Presented by	Comments
23			Cargo Compartment Classification	B. Firkins	Discussed. To be considered by FLTOPSP-SCGSWG as part of work on Doc 9481. DGP members and advisers free to join if interested. See para 4.2.4.1 of this report.
24			NOTOC Requirements – Sodium Ion Batteries	B. Firkins	Agreed. See para 4.2.2.5 of this report.
25			Guidance for Issuing Approvals for the Transport of Cells and Batteries	DGP-WG/Energy Storage Devices	Discussed. Support for further review of the material by DGP-WG/ESD to consider expanding the guidance based on experience gained. See para 4.4.4 of this report.
26			Report of the ICAO DGP Working Group on Training	T. Muller	Discussed. Job card to be developed. See para 4.2.2 of this report.
27			Sodium Ion Batteries in the Post	B. Firkins	Discussed. Secretary to engage with the UPU in coordination with IATA through the organizations' respective contact committees. Request to add issue to agenda for next meeting of the ICAO/UPU Contact Committee Meeting (June 2025). See para 4.4.5 of this report.

WP No.	FL No.	IP No.	Title	Presented by	Comments
28			Safety Concerns with Lithium Battery Powered Mobility Devices	B. Firkins	Discussed. An ad hoc working group supported by relevant experts to consider ways of improving existing regulatory framework and the need for guidance material to assist operators. Recommendations to be developed for endorsement at the panel's thirtieth meeting in the Fall of 2025. See para 4.4.2 of this report.
29			Interpanel Coordination: Proposed Amendment to Annex 6, Parts I and III for Ramp Inspection of Foreign Operators	the Secretary	Discussed. Comments provided to FLTOPSP Secretariat. See para 4.8.3 of this report.
30			Scope of Application for Sections IA of Packing Instructions 965 and 968	P. Guo	Not agreed. Potential new proposal for DGP-WG/25. See para 4.4.6 of this report.
31			Special Provision A211	B. Firkins	Discussed. No revisions necessary. See para 4.3.9 of this report.
		1	Proposed Revisions to Amendment to Annex 18 to Clarify States' Responsibilities with Respect to the Safe Transport Of Dangerous Goods By Air	the Secretary	Discussed. See para 4.5 of this report.
		2	Progress on Efforts to Relax Transport Regulations for All-Solid-State Batteries at the UN Sub-Committee	T. Tabata	Discussed. See para 4.4.7 of this report.

WP No.	FL No.	IP No.	Title	Presented by	Comments
		3	Update on the Development of a Hazard-Based Classification System for Lithium Batteries by the UN Informal Working Group on Hazard-Based Classification of Lithium Batteries and Cells	the Secretary	Discussed. See para 4.4.8 of this report.
		4	Transport of Fuels by air in Containers With a Capacity Greater than Provided For in the ICAO Technical Instructions	the Secretary	Discussed. See para 4.3.10 of this report.
		5	Lithium Battery(ies) that Remain Installed in Mobility Aids (Related to DGP-WG/24-WP/8 and DGP-WG/24-WP/28)	D. Pfund	Discussed. See para 4.4.2 of this report.
		6	Information on the Status of European Union Aviation Safety Agency (EASA) Research Projects	L. Calleja Barcena	Discussed. See para 4.4.9 of this report.
		7	Update on progress made by the UN Sub-Committee's informal working group on lithium batteries in the development of a hazard-based classification system for lithium batteries and cells	R. Dardenne	Discussed. See para 4.4.8 of this report.
		8	Report from Secretary of the Safe Carriage of Goods Specific Working Group of the Flight Operations Panel	the Secretary	Discussed. See para 4.8.4 of this report.

— END —