



**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals****Sub-Committee of Experts on the Transport of Dangerous Goods****Sixty-third session**

Geneva, 27 November-6 December 2023

Item 4 (e) of the provisional agenda

Electric storage systems:**Sodium-ion batteries****Proposed amendments to special provision 400 and
classification criteria for lithium and sodium ion batteries****Transmitted by the International Civil Aviation Organization (ICAO)*****I. Introduction**

1. An informal document was presented to the sixty-second session of the Sub-Committee (informal document INF.24) highlighting the views of the ICAO Dangerous Goods Panel (DGP) on the new special provision assigned to UN 3551 and UN 3552 (SP 400) and on the classification criteria for sodium ion batteries. Potential challenges related to special provision (SP) 400 were raised, and suggestions for editorial amendments in chapter 2.9 were made.

II. Special provision 400

2. On the marking specified in paragraph (c) of SP 400, opinions were divided on the benefits and drawbacks of including this marking on such packages. For air transport, a compliance statement must be placed on an air waybill when packages bear the mark. This may disrupt the air cargo acceptance process, thus negating the intent of the special provision. It is therefore proposed to remove the requirement for the mark in SP 400.

**III. Proposal for editorial revisions to the classification criteria
for sodium ion batteries**

3. Most of the Sub-Committee experts who took the floor supported the editorial revisions. It was noted that the revisions to the classification criteria for sodium ion batteries in chapter 2.9, 2.9.5 should also be made to the lithium battery criteria in 2.9.4 if the ones to

* A/77/6 (Sect. 20), table 20.6



2.9.5 were agreed. It was agreed that the revisions would be presented in an official document by ICAO at this session.

4. An additional inconsistency was identified by the DGP whereby a note under the classification criteria for lithium batteries clarifying the intent of “make available” with respect to the test summary report is not repeated under the classification criteria for sodium ion batteries. It is proposed that it be added to chapter 2.9, 2.9.5 under sub-paragraph (f).

IV. Proposal

5. Amend SP 400 as follows (new text is underlined and in bold, deleted text is stricken-through):

“400 Sodium ion cells and batteries and sodium ion cells and batteries contained in or packed with equipment, prepared and offered for transport, are not subject to other provisions of these Regulations if they meet the following:

(a) The cell or battery is short-circuited, in a way that the cell or battery does not contain electrical energy. The short-circuiting of the cell or battery shall be easily verifiable (e.g., busbar between terminals);

(b) Each cell or battery meets the provisions of 2.9.5 (a), (b), (d), (e) and (f);

~~(c) Each package shall be marked according to 5.2.1.9;~~

~~(c)~~ **(c)** Except when cells or batteries are installed in equipment, each package shall be capable of withstanding a 1.2 m drop test in any orientation without damage to cells or batteries contained therein, without shifting of the contents so as to allow battery to battery (or cell to cell) contact and without release of contents;

~~(d)~~ **(d)** Cells and batteries, when installed in equipment shall be protected from damage. When batteries are installed in equipment, the equipment shall be packed in strong outer packagings constructed of suitable material of adequate strength and design in relation to the packaging’s capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained;

~~(e)~~ **(e)** Each cell, including when it is a component of a battery, shall only contain dangerous goods that are authorized to be transported in accordance with the provisions of chapter 3.4 and in a quantity not exceeding the quantity specified in column 7a of the Dangerous Goods List of chapter 3.2.”

6. Amend 2.9.4 and 2.9.5 as follows (new text is underlined and in bold, deleted text is stricken-through):

“2.9.4 Lithium batteries

... They may be transported under these entries ~~if they meet the following provisions~~ **provided:**

...

(e) Cells and batteries ~~shall be~~ **are** manufactured under a quality management programme that includes:

...

(g) Except for button cells installed in equipment (including circuit boards), manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 ~~shall make available~~ the test summary as specified in the *Manual of Tests and Criteria*, part III, sub-section 38.3, paragraph 38.3.5 **available**.

NOTE: The term "make available" means that manufacturers and subsequent distributors ensure that the test summary for lithium cells or batteries or equipment with installed lithium cells or batteries is accessible so that the consignor or other persons in the supply chain can confirm compliance.

2.9.5 Sodium ion batteries

...

They may be transported under these entries ~~if they meet the following provisions~~ **provided:**

...

(e) Cells and batteries ~~shall be~~ **are** manufactured under a quality management program as prescribed under 2.9.4 (e) (i) to (ix);

(f) Manufacturers and subsequent distributors of cells or batteries ~~shall~~ make ~~available~~ the test summary as specified in the *Manual of Tests and Criteria*, part III, sub-section 38.3, paragraph 38.3.5 **available**.

NOTE: The term "make available" means that manufacturers and subsequent distributors ensure that the test summary for sodium ion cells or batteries or equipment with installed sodium ion cells or batteries is accessible so that the consignor or other persons in the supply chain can confirm compliance.