

Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

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Sub-Committee of Experts on the Transport of Dangerous Goods

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Item 4 (c) of the provisional agenda

Electric storage systems: transport provisions

Cells and batteries — Scope of special provision 310

Transmitted by the expert from Switzerland

Summary

Executive summary:	The aim is to clarify the scope of application of special provision 310.
Action to be taken:	Amend the text of special provisions 310.
Related documents:	ST/SG/AC.10/C.3/2022/7, ST/SG/AC.10/C.3/2022/30 and ST/SG/AC.10/C.3/2022/32

1. Documents ST/SG/AC.10/C.3/2022/7, ST/SG/AC.10/C.3/2022/30 and ST/SG/AC.10/C.3/2022/32 raise a difficulty of interpretation of special provision 310.
2. Proposal 1 of ST/SG/AC.10/C.3/2022/30 in French is not formulated exactly in the same way as in English.

English: "These cells and batteries from shall meet the provisions of 2.9.4..."

French: "Les piles et batteries doivent alors satisfaire aux dispositions du 2.9.4, à l'exception des 2.9.4 a), e) vii), f) iii) le cas échéant, f) iv) le cas échéant et g)."
3. Since special provision 310 applies to all UN-entries concerning lithium cells and batteries, it could be interpreted in French that the exemptions introduced in this paragraph apply to all types of cells and batteries and not only to those mentioned in the first paragraph of special provision 310.
4. To avoid misinterpretation, proposal 1 in ST/SG/AC.10/C.3/2022/30 should be drafted in French as follows:

"Ces piles et batteries doivent satisfaire aux dispositions du 2.9.4..."
5. In paragraph 9 of ST/SG/AC.10/C.3/2022/32, RECHARGE and PRBA state that special provision 310 applies particularly to prototypes, that may need to be transported for various reasons, including testing according to sub-section 38.3 of the Manual of Tests and Criteria. They conclude by proposing to add a paragraph that would generally exempt any cell or battery from some of the provisions of 2.9.4 relating to compliance with the Manual of Tests and Criteria (2.9.4. (a)), manufacture in accordance with a quality management programme (2.9.4. (e)), in the case of batteries containing primary cells the battery need not be tested as a primary battery (2.9.4. (f) (iii)), a summary of the test report may be omitted (2.9.4. (g)).
6. However, special provision 310 does not seem to be clear enough about the scope of the second word « prototypes » is not limited to this particular case of transport of prototypes. Indeed, special provision 310 also exempts from testing production runs consisting of up to

100 batteries without being prototypes that are part of a quality system manufactured in the laboratory and without apparently specifying the purpose of these production runs. As the text proposed in ST/SG/AC.10/C.3/2022/32 applies to any lithium cell or battery, the exemptions cited will also apply to cells and batteries in production runs of up to 100 cells.

7. Furthermore, since special provision 310 applies to all entries concerning cells and batteries, it could be interpreted that the exemptions introduced in this paragraph apply to all types of cells and batteries and not only to those mentioned in the first paragraph of special provision 310.

8. To avoid misinterpretation, the proposal in ST/SG/AC.10/C.3/2022/32 should refer to cells and batteries in the first paragraph as follows :

English: "310 ...

These cells and batteries shall meet the provisions of 2.9.4..."

French: "310 ...

Ces piles et batteries doivent satisfaire aux dispositions du 2.9.4..."

9. In addition, an approach to exempt from testing all types of cells and batteries installed in equipment is proposed in ST/SG/AC.10/C.3/2022/7.

10. Experts should consider whether the exemption from testing in SP 310 was really intended for the production of millions of identical cells and batteries manufactured in runs of up to 100 units which could then enter untested into commercial channels and be installed in various equipment.

11. From a safety point of view it seems more appropriate to consider that the second term "prototypes" used in the first paragraph of SP 310 also includes production runs of up to 100 units. This interpretation is supported by the rest of the text, which indicates that the transport is for testing and that it should be carried out according to P910 or LP905. Given that both of these packing instructions are applicable to both pre-production prototypes and production runs of cells and batteries of 100 units or less, and that the subject of the sentence "when are packed in accordance with packing instruction P910 of 4.1.4.1 or LP905 of 4.1.4.3, as appropriate" is the word "prototypes", it must be concluded that the word "prototypes" applies to both, production runs of 100 cells or batteries or less and to pre-production prototypes. In conclusion, both production runs and pre-production prototypes can only benefit from the exemption of SP 310 if they are transported for the purpose of testing and are packed in accordance with P 910 or LP905.

12. According to this interpretation, the proposal contained in document ST/SG/AC.10/C.3/2022/7 cannot be adopted.

13. It seems however that the current text does not allow a broader interpretation to be excluded. In order to avoid unnecessary and potentially unacceptable risks in the commercial circuits of lithium batteries and cells and in the equipment in which they are installed, it seems necessary to define more precisely the scope of the exemption from the tests of SP 310.

14. This could for example be achieved by the following addition to the first sentence of SP310

310 The testing requirements in the Manual of Tests and Criteria, part III sub-section 38.3 do not apply to production runs, consisting of not more than 100 cells or batteries, or to pre-production prototypes of cells or batteries when **the cells or batteries** and ~~these prototypes~~ are transported for testing **and when** packaged in accordance with packing instruction P910 of 4.1.4.1 or LP905 of 4.1.4.3, as applicable.
