



**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****Fifty-fourth session**

Geneva, 26 November-4 December 2018

Item 2 (f) of the provisional agenda

**Recommendations made by the Sub-Committee on its fifty-first,
fifty-second and fifty-third sessions and pending issues:
miscellaneous pending issues****Provisions for data loggers and other equipment, containing
electric energy storage and production systems, in use during
transport****Transmitted by the expert from the Netherlands*****Introduction**

1. Over the past few sessions, the Sub-Committee has discussed the applicability of the Model Regulations with regard to dangerous goods which are not a part of the consignment but that are transported or are a part of the transport operation. For background information and review of the discussion, see for example ST/SG/AC.10/C.3/2017/13, ST/SG/AC.10/C.3/2017/22, informal documents INF.27 (fifty-first session), INF.29 and INF.60 (fifty-second session), ST/SG/AC.10/C.3/2018/57 and informal document INF.30 (fifty-third session).

2. While the more fundamental discussions are ongoing, there is a need for provisions that provide regulatory clarity for data loggers and information tracking systems containing lithium batteries that are attached to or contained in packaging, large packaging, intermediate bulk containers (IBCs) or cargo transport units as equipment in use or intended for use during transport. In this document, the expert from the Netherlands proposes an approach which attempt to take into account the views expressed during the discussions.

* In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, para. 14).

3. Although regulatory clarity is most urgently needed for data loggers containing lithium batteries, a broader range of products and technologies will benefit from the same regulatory clarity and reduce the need for multiple ad hoc exemptions for equipment and technologies in use during transport. The proposals therefore contain provisions that apply to a broader range of equipment in use or intended for use during transport than data loggers, and a broader range of electric energy production and storage technologies than lithium batteries. These provisions are inspired by similar exemptions in place for European land transport in section 1.1.3.7 of RID/ADR.

4. During the discussions, it was broadly agreed that data loggers and other equipment containing electric energy storage and production systems installed in the means of transport performing the transport operation fall under the existing exemptions of section 1.1.1.2 (a). These specify that the Model Regulations do not apply to dangerous goods required for the operation of specialized equipment of the means of transport performing the transport operation. For clarification, proposal 1 in paragraph 10 adds electric energy storage and production systems to the list of the examples in 1.1.1.2 (a).

5. For data loggers and other equipment in use or intended for use during transport attached to or contained in packaging, large packaging, IBCs or cargo transport units etc., there were varying views on which, if any, provisions were needed in the Model Regulations. It was generally agreed that they should not and could not be required to comply with all the provisions that are applicable for consignments, such as marking, labelling and packaging.

6. With regard to construction and test performance requirements for data loggers and other equipment in use during transport attached to or contained in packaging, large packaging, IBCs or cargo transport units etc., some considered that no additional provisions are needed in the Model Regulations since the requirements of the Model Regulations must already be complied with when these equipment are transported as a consignment. However, others were of the opinion that basic construction and performance requirements are necessary for safety and multimodal harmonisation.

7. While more fundamental discussion is needed to accommodate all the views expressed, the expert from the Netherlands proposes as a constructive compromise to introduce a new paragraph 1.1.1.10 and a new section 5.5.4 as shown in proposal 2 in paragraph 10 of this document.

8. The new paragraph 1.1.1.10 specifies that electric energy storage and production systems and equipment containing such systems attached to or contained in packaging, large packaging, IBCs or cargo transport units in use or intended for use, are only subject to the provisions of the new section 5.5.4. Section 5.5.4 specifies that they must comply with the same construction and test performance requirements as are required when they are transported as a consignment. These provisions provide basic requirements to facilitate multimodal harmonisation and safety. Further provisions needed for operational safety by the modal bodies may be left to the consideration of each mode.

9. These provisions would come in place of the provisions for a new 1.1.1.2 (c) that were adopted within square brackets during the fifty-first session of the Sub-Committee. This is the subject of proposal 3 in paragraph 12.

Proposal 1

10. For electric energy production and storage systems installed in the means of transport, modify 1.1.1.2 (a) by adding electric energy storage and production systems to the list of examples as shown below with additions in underlined font:

“1.1.1.2 These regulations do not apply to the transport of

- (a) Dangerous goods that are required for the propulsion of the means of transport or the operation of its specialized equipment during transport (e.g. refrigeration units, electric energy storage and production systems) or that are required in accordance with the operating regulations (e.g. fire extinguishers);”

Proposal 2

11. For electric energy storage and production systems and equipment containing such systems attached to or contained in packaging, large packaging, IBCs or cargo transport units, add a new paragraph 1.1.1.10 in Chapter 11 and a new section 5.5.4 in Chapter 5.5. Additions are shown in underlined font:

“1.1.1.10 Electric energy storage and production systems and equipment containing such systems in use or intended for use during transport.

Electric energy storage and production systems (e.g. lithium batteries, electric capacitors, asymmetric capacitors, metal hydride storage systems, and fuel cells) and equipment containing such systems attached to or contained in packaging, large packaging, IBCs or cargo transport units in use or intended for use during transport are only subject to the provisions of section 5.5.4.”

“5.5.4 Special provisions applicable to electric energy storage and production systems in use or intended for use during transport.

5.5.4.1 This section is not applicable to electric storage and production systems (e.g. lithium batteries, electric capacitors, asymmetric capacitors, metal hydride storage systems and fuel cells) and equipment containing such systems when transported as a consignment. When transported as a consignment, they shall be transported under the relevant entry of the Dangerous Goods List in Chapter 3.2 in accordance with the associated conditions of transport.

5.5.4.2 Electric energy storage and production systems and equipment containing such systems in use or intended for use during transport attached to or contained in packaging, large packaging, IBCs or cargo transport units, are not subject to any other provisions of these Regulations than those of this section.

5.5.4.3 The electric energy storage and production systems shall meet the construction and test performance criteria specified in these Regulations in 2.9.4 (a)-(g) or in the relevant special provisions such as 328, 339, 361 or 372 as applicable.

5.5.4.4 Equipment containing electric energy and storage systems shall be strong enough to withstand the shocks and loadings normally encountered during transport.

Proposal 3

12. Delete the text for a new paragraph 1.1.1.2 (c) adopted within square brackets at the fifty-first session (see ST/SG/AC.10/C.3/2018/65).