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**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-fifth session**

Geneva, 1-5 July 2019

Item 4 (f) of the provisional agenda

**Electric storage systems: miscellaneous****UN 3536 “LITHIUM BATTERIES INSTALLED IN  
CARGO TRANSPORT UNIT lithium ion batteries or  
lithium metal batteries”****Transmitted by the Intergovernmental Organisation for International  
Carriage by Rail (OTIF)<sup>1</sup>****Introduction**

1. The entry UN 3536 “LITHIUM BATTERIES INSTALLED IN CARGO TRANSPORT UNIT lithium ion batteries or lithium metal batteries” was included in the twentieth edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations, together with special provision 389.
2. This decision was taken on the basis of documents ST/SG/AC.10/C.3/2015/56 and ST/SG/AC.10/C.3/2016/41 and informal document INF.69 (forty-ninth session).
3. Document ST/SG/AC.10/C.3/2015/56, which introduced this subject for the first time, said that lithium batteries mounted in racks or frames should be "securely attached to the interior structure of closed cargo transport units, in particular, freight containers and freight vehicles. Thus, in effect, the closed cargo transport unit is the casing for a very large lithium battery."
4. In document ST/SG/AC.10/C.3/2016/41, which took account of the preliminary discussions on this subject, "TRANSPORTABLE BATTERY POWER SYSTEM, lithium battery powered" was proposed as a possible proper shipping name. However, in the text

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<sup>1</sup> In accordance with the programme of work of the Sub-Committee for 2019-2020 approved by the Committee at its ninth session (see ST/SG/AC.10/C.3/108, paragraph 141 and ST/SG/AC.10/46, paragraph 14).

proposed for the special provision, the term "closed cargo transport unit" was maintained, with the addition of "(e.g. a freight container or freight vehicle)".

5. In informal document INF.69 (forty-ninth session), the proper shipping name was then changed to "LITHIUM BATTERIES INSTALLED IN TRANSPORT UNIT lithium ion batteries or lithium metal batteries", and when this informal document was discussed "TRANSPORT UNIT" was changed to "CARGO TRANSPORT UNIT".

6. Special provision 389 explains firstly how these cargo transport units are built and secondly, deals with the affixing of placards and marking with UN 3536.

7. The last sentence of special provision 389, which deals with the affixing of placards and marking with UN 3536, reads as follows:

“The cargo transport unit shall display the UN number in accordance with 5.3.2.1.2 and be placarded on two opposing sides in accordance with 5.3.1.1.2.”.

8. This sentence was also included in RID/ADR with the references adapted.

9. Following various enquiries with regard to the interpretation of special provision 389 in the context of RID and ADR, the Secretariat of OTIF submitted informal document INF.22<sup>1</sup> to the Spring session of the RID/ADR/ADN Joint Meeting (Berne, 18 to 22 March 2019), which attempted to clarify special provision 389 for European land transport.

10. As cargo transport units may be a wagon/vehicle or container according to the definition in 1.2.1 of the Model Regulations and RID/ADR/ADN, the proposed clarification was provided separately for wagons, vehicles and containers.

11. As the requirements of special provision 389 (placards and indication of the UN number on two opposing sides) correspond to the essential requirements of 5.3.1.1.4 and 5.3.2.1.2 of the Model Regulations in terms of affixing placards and indicating the UN number, the Secretariat also took the basic provisions of RID/ADR/ADN concerning the affixing of placards and the orange-coloured marking as the basis for the clarification in special provision 389.

12. The basic provisions of RID/ADR/ADN read as follows:

(a) Placards:

- on containers: on all four sides (the Model Regulations only require placards on two opposing sides);
- on ADR vehicles: on both sides and at the rear;
- on RID wagons: on both sides;

(b) Orange-coloured plates, which, in addition to the UN number, must also bear the hazard identification number:

- on containers: on both sides;
- on vehicles: on both sides and on the front and rear ends of transport units;
- on wagons: on both sides.

13. The main differences in the basic provisions are that containers also have in principle to bear placards on all four sides and that in road transport, it is important to affix placards and orange-coloured plates on the front and rear ends.

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<sup>1</sup> <http://www.unece.org/fileadmin/DAM/trans/doc/2019/dgwp15ac1/ECE-TRANS-WP15-AC1-19-BE-inf22e.pdf>.

14. Various delegations supported the clarification proposed by the OTIF secretariat, but the question was also raised as to whether the description "cargo transport unit" was suitable for such articles. An extract of the draft report of the spring session of the RID/ADR/ADN Joint Meeting is reproduced below:

## **“12. Special provision 389**

*Informal document: INF.22 (OTIF secretariat)*

50. The Joint Meeting noted that, despite the current proper shipping name assigned to UN No.3536, the articles covered by this entry were closer in nature to machinery than to cargo transports units. Consequently, it could be inappropriate to assimilate them to wagons, vehicles or containers for the purposes of placarding and marking. Some delegations considered that the UN number was the most valuable information to be shown, as it provided specific details on the type of article.

51. After an exchange of views and noting that carriage of articles under UN No.3536 often involved a maritime leg followed or preceded by land carriage, the Joint Meeting considered that the issue should be brought to the attention of the Sub-Committee of Experts on the Transport of Dangerous Goods. The OTIF secretariat was invited to submit an official document for the next session of the Sub-Committee, seeking its feedback on the interpretation of the applicable placarding and marking provisions and on the appropriateness of the current proper shipping name given the characteristics of the articles under consideration.

15. On behalf of the RID/ADR/ADN Joint Meeting, the Secretariat of OTIF addresses the following questions to the Sub-Committee:

(a) What is meant by the term "cargo transport unit" in the proper shipping name of UN 3536?

(b) Does the term "cargo transport unit" cover containers as well as wagons and vehicles, as in the definition of cargo transport unit in 1.2.1?

(c) Depending on questions (a) and (b), would another term also be conceivable, for example "POWER STORAGE UNIT containing lithium ion batteries or lithium metal batteries"?

(d) In special provision 389, was there a conscious decision to align the provisions for affixing placards and marking with the UN number with the essential provisions of 5.3.1.1.4 and 5.3.2.1.2? If so, is the Sub-Committee of the view that the essential provisions should also be applied to the various transport modes?

16. If, in view of the difficulties described, the Sub-Committee is of the view that the term "cargo transport unit" is not suitable in the proper shipping name, the Secretariat of OTIF would draft a proposal for amendment to the proper shipping name.

17. Depending on the replies provided by the Sub-Committee, the Secretariat of OTIF would submit its proposal to the RID/ADR/ADN Joint Meeting.

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