

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

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Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods

Bern, 19–23 March 2012

Item 5 (a) of the provisional agenda

Proposals for amendments to RID/ADR/ADN: pending issues

Transport of Damaged Lithium Batteries

Transmitted by the Government of Germany

Introduction

1. The Government of Germany transmitted informal document INF.9 for the last Joint Meeting. The document contained a proposal on the establishment of regulations for the carriage of damaged lithium batteries. With regard to the ongoing discussions in the UN Sub-Committee of Experts, the Joint Meeting was of the opinion that it was too early to establish such provisions.
2. On the basis of document ST/SG/AC.10/C.3/2011/40, the UN Sub-Committee of Experts discussed the issue again at its meeting in December 2011. A decision could, however, not yet be reached; the discussions will be continued. During the discussion it became clear, in particular, that it will be very difficult to formulate general packing requirements as the transport operations and the hazards emanating from them can vary considerably. The UN Sub-Committee of Experts is of the opinion that, inter alia, the size of the battery might be a differentiating criterion.
3. Since it is unlikely that the UN Sub-Committee of Experts will take a decision, on which a multilateral special agreement could be based, in the near future, Germany proposes to establish a regulation in RID/ADR/ADN for European inland transport only. Germany considers that initially inland transport accounts for the main transport operations carried out under such a regulation, in particular in connection with large lithium batteries which are increasingly used in vehicles and possible damage to these batteries resulting from accidents.

Proposal

4. (Changes compared to the proposal in INF.9 are underlined.)
For UN 3090, UN 3091, UN 3480 and UN 3481, a new line should be inserted in Table A of Chapter 3.2 with the same name, class, classification code, labels and requirements for limited quantities and excepted quantities as well as the hazard identification code (for RID only); in column (2) the description “damaged batteries” should be added.
5. No packing group should be indicated in column (4).
6. The new special provision "6xx" should be indicated in column (6).

7. "P099" should be inserted in column 8.
8. Instead of a transport category and tunnel restriction code, the following should be added in column (15): "(see special provision 6xx)".
9. The following special provision should be inserted in Chapter 3.3:

"6xx Carriage of damaged batteries if not collected and presented for carriage for disposal according to special provision 636 is permitted only under the conditions defined by the competent authority of the country of origin. The competent authority approval shall include the applicable transport category and the tunnel restriction code.

Damaged lithium batteries are in particular:

 - Batteries identified by the manufacturer as being defective for safety reasons,
 - Batteries with damaged or considerably deformed cases,
 - Leaking or venting batteries,
 - Batteries that are not diagnostic-capable."

Justification

10. Without a regulation on this issue, there currently is no possibility to carry damaged lithium batteries in accordance with ADR/RID/ADN. Carriers who want to act in conformity with the regulations are dependent on an individual authorisation. This practice will become more and more difficult because of the increasing transport needs, e.g. when lithium batteries have to be removed after an accident or due to defects.
11. As the case of damaged batteries is not even mentioned in the set of regulations, the current legal situation is unclear to users. Therefore, there is concern that due to lack of knowledge many damaged lithium batteries will be carried in accordance with the provisions for new or intact batteries without the required additional safety measures. In accordance with current findings, this entails a significant risk; in particular the incident in the USA following the test of an electric vehicle (see www.nhtsa.gov) highlights the need for carriage under established conditions.
12. This is the reason why this issue should be regulated as soon as possible. A decision of the Joint Meeting at present does not conflict with further discussions within the UN Sub-Committee of Experts. An already existing packing instruction (P099) is to be used; this solution can be seen as a temporary solution. When the UN Sub-Committee of Expert has developed a final solution, this solution can be made directly applicable within the framework of a multilateral special agreement.
13. The use of packing instruction P099, too, involves the approval of a competent authority. However, compared to an individual authorisation, it has the advantage that there is no restriction to an individual transport operation (see also Article 6 (5) of Directive 2008/68/EC). Moreover, all decisions are taken by the authority competent for dangerous goods packagings. Lithium batteries and the damage to them differ widely which makes it more difficult to establish a packing instruction covering all cases. The use of packing instruction P 099 will provide the authorities competent for dangerous goods packagings with experience and knowledge which can be used for further developing the conditions of carriage for damaged lithium batteries in the future.
14. When used batteries are carried under special provision 636 in conjunction with packing instruction P903b, it can also not be ruled out that there are damaged batteries

among the collected batteries. With this provision, however, the special case of the collection of consumer batteries has been taken account of; this provision is not to be affected by the above proposal.

15. The proposal also covers lithium batteries packed with or contained in equipment as there may be a need to carry in particular batteries installed in equipment without first removing them from the equipment in the case of a defect.
