



INF. 13

20 February 2015

Original: German

RID/ADR/ADN

Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods (Bern, 23 – 27 March 2015)

Item 5 (a) of the agenda: Proposals for amendments to RID/ADR/ADN – Pending issues

Evaluation of the answers to the questionnaire on the carriage of waste electrical and electronic equipment

Transmitted by Germany

1. At the last RID/ADR/ADN Joint Meeting (Geneva, 15-19 September 2014), a preliminary discussion based on informal document INF.12 submitted by Germany was held on the carriage of waste electrical and electronic equipment (WEEE), see also paragraphs 46 to 48 of the report ECE/TRANS/WP.15/AC.1/136.
2. In accordance with Directive 2012/19/EU, waste electrical and electronic equipment has to be collected separately from municipal waste so that it can be sent for correct treatment, i.e. the material can be prepared for re-use or recovery and recycling measures can be performed. The Joint Meeting noted that the waste electrical and electronic equipment carried within this framework may comprise dangerous goods, in particular lithium batteries. For this reason, special conditions of carriage in RID/ADR/ADN or exemptions should be considered.
3. Before deciding on how to proceed, the Joint Meeting wants to take stock of all the experiences of those states that have already had experience in this field. To this end, Germany was asked to draw up a questionnaire. This questionnaire was sent out in November 2014.

4. Germany has received answers to this questionnaire from a total of 20 states or organizations: AT, BE (Recupel), CH, DK (1 x ITD, 1 x answer from a local community), DE, EE, FR (1 x FNADE, 1 x Eco-Systemes), HU, IE (1 x answer from HSA, 1 x WEEE Ireland), NL (1 x WECYCLE, 1 x answer from an undertaking), NO, PL and SE. Two answers were sent by FEAD member undertakings FEBEM-FEGE (BE) and DWMA (NL).

A – Evaluation of the individual questions

5. Question 1: Is waste electrical and electronic equipment (WEEE) carried as dangerous goods? (Class 9 or exempt under SP 636)

For the most part, dangerous goods legislation not applied, but

- EE: carriage as Class 9;
- PL: carriage under dangerous goods legislation;
- BE: (Recupel): as from 1 July 2015 carriage under SP 636;
- NL (WECYCLE): depending on collection group, classification as dangerous goods, carriage under SP636.

6. Question 2: Which receptacles/containments are used?

- In almost all states that have sent answers, wire-mesh boxes, crates or the like are used for collection and carriage [BE (FEBEM-FEGE), DE, DK, EE, FR, IE, NL (1x), AT, SE, CH].
- Some answers also mentioned that IBCs (AT, CH) or IBCs and packagings (NL) were used – as WEEE is not carried as dangerous goods there, it has to be assumed that these packagings and/or IBCs are not approved packagings and/or IBCs but fulfil the requirements for strong outer packagings that are otherwise only mentioned in the answers from BE (Recupel), NL and CH.
- In BE and PL: Large packagings, HU: 1m³ “Container”
- Containers are used for carriage in almost all states and in the majority of cases also for collection. There are differences with regard to the used container types: open containers (AT, DE, FR, IE, NL, CH); sheeted containers (AT, CH, DE, FR, NL, SE); closed containers [BE, CH, DE, EE (collection only), IE, NL, PL, SE]. In three answers from NL and DK, it is stated that containers are only used for carriage.
- Closed vehicles are used almost everywhere [CH, DE, DK, EE, FR, IE (for transport of “cages” only) NL, SE], partly also sheeted vehicles (CH, DE, FR, NL) or open vehicles [CH, DE (transport) DK].

7. Question 3: Conduct of the collection

- a) Which types of collection points are provided?

- Six states mention collection bins/containers in public areas.
- Collection points in stores/at manufacturers are mentioned in all answers; here, there are collection points both with and without personnel.
- Collection points at municipal disposal companies are mentioned in all answers; these are mainly collection points with personnel.
- Collection points at private disposal companies are mentioned in the majority of the answers; here, collection points with personnel are mentioned more often.

- b) Which type of sorting is performed or could be performed prior to carriage?

- Mainly, no sorting of WEEE is performed; however, collection in categories according to Directive 2012/19/EU is stated for AT (partly), BE (Recupel), IE, FR (Eco-Systemes), DK, NL. In CH and DE, sorting in accordance with 5 collection groups is (still) performed; in EE and SE, such sorting is performed after collection.

- If sorting is performed, WEEE with or without cables are separated (DK, AT in part) or WEEE with or without batteries (DK). These sorting possibilities are considered feasible by some states, but in particular the separation of WEEE with or without battery is considered difficult and only feasible with trained personnel. In DE, in some cases, removal of easily removable batteries.
- Sorting according to categories under Directive 2012/19/EU is considered possible in the majority of the answers.

8. Question 4: Collection/carriage procedure?

- WEEE is mainly handed over to collection points with personnel.
- In some states, to a lesser extent, there are also pick-up systems (DE, DK, HU, PL), in some cases only for WEEE used professionally or for return within the framework of the delivery of new products.
- In some areas depot containers are also provided (i.e. collection points in public areas without personnel).
- Consolidation of various collection points was confirmed in some answers.
- In general, the battery is removed during primary treatment; in one answer (DE), it was noted that only pre-sorting was possible during primary treatment and that WEEE were carried on to another treatment facility.

9. Question 5: What information is available on the share of lithium batteries in WEEE?

- BE (Recupel): average of 6 kg in 7,500 kg.
- DE:
 - Assessment 1: Collection group 3 (IT and telecommunications equipment, consumer equipment) = 49.5 kg per container (38m³), collection group 5 (small household appliances, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, medical devices, monitoring and control instruments) = 42.5 kg per container (38m³).
 - Assessment 2: Collection groups 3 and 5: 72 - 79 kg per container (30m³).

10. Question 6: Which national specifications/studies on the conduct and safety of collections and carriage operations exist?

(For individual answers see INF.13/Add.1)

B – Conclusions/issues for discussion

11. For the most part, dangerous goods legislation is not applied. The awareness of the parties involved needs to be raised, and they need to be informed; practice needs to be adapted to the regulations.
12. WEEE is often collected in containers. When WEEE is collected in bulk without load securing in containers, this is a case of carriage in bulk that is not permitted under the current regulations.
13. Packing instruction P 909 (3) contains 2 options:
 - (a) strong outer packaging;
 - (b) unpackaged carriage if the lithium batteries are afforded sufficient protection by the equipment.

Wire-mesh boxes/crates and containers are not outer packaging within the meaning of the regulations, so this is a case of unpackaged carriage. Where the batteries are fitted to the outside of the device and are not completely enclosed in the device, it is questionable whether the batteries are afforded sufficient protection by the equipment.

14. It is also possible to carry damaged batteries under SP 636. It is questionable whether unpackaged carriage is a suitable packing method for these batteries.
15. Where depot containers (collection containers in public areas) are used, these containers are not usually used for carriage, but the WEEE is transferred from them into a skip or another vehicle. This logistics operation includes inadmissible carriage in bulk. Nevertheless, these receptacles result in higher collection rates and help to prevent disposal in residual refuse.
16. In some cases, several collection points are consolidated. This involves transfer operations which might damage WEEE and thus the batteries.
17. Where sorting in accordance with the categories of Directive 2012/19/EU is performed, consideration could be given to establishing different carriage requirements for the different categories. In order to differentiate according to categories of waste equipment, information on the share of lithium batteries per category would need to be obtained.
18. The exemption in accordance with SP 636 only applies to "small" batteries. Batteries ≥ 500 g and/or ≥ 100 Wh/ ≥ 2 g of lithium cannot, however, be sorted out reliably.
19. The exemption in accordance with SP 636 requires that packages be marked. This provision is not suitable for unpackaged carriage.
20. The exemption in accordance with SP 636 requires that a quality assurance system be in place to ensure that the total amount of lithium batteries per transport unit does not exceed 333 kg. The figures available to date suggest that this limit can be met easily and that the quality assurance programme can be ensured by means of the return systems.
21. It has to be clarified how the term "intermediate processing facility" is to be interpreted. In Germany's opinion, purely sorting procedures, as performed e.g. in recycling centres, should not be seen as intermediate processing. (Note: for the treatment of waste electric equipment under Directive 2012/19/EU, the following definition under Article 3 of Directive 2008/98/EC applies: "Treatment" means recovery or disposal operations, including preparation prior to recovery or disposal).
22. When WEEE is not carried under SP 363, the quantity of the batteries has to be indicated in the transport document in accordance with Note 2 in paragraph 5.4.1.1.1 (f). However, this quantity is not known for WEEE.

C – Proposal

23. The RID/ADR/ADN Joint Meeting is invited to take note of the information and discuss the further steps.
24. In any case, special provision 636 (b) needs to be amended, as this provision was tailored specifically to the collection of batteries. SP 636 (b) should be amended to read as follows (amendments are underlined):

"(b) Up to the intermediate processing facility

- lithium cells and batteries with a gross mass of not more than 500 g each or lithium ion cells with a Watt-hour rating of not more than 20 Wh, lithium ion batteries with a Watt-hour rating of not more than 100 Wh, lithium metal cells with a lithium content of not more than 1 g and lithium metal cells with an aggregate lithium content of not more than 2 g, whether or not contained in equipment, collected and handed over for carriage for disposal or recycling as well as
- lithium cells and batteries in equipment collected and handed over for carriage for disposal or recycling as waste electrical or electronic equipment under Directive 2012/19/EU,

together with or without non-lithium cells or batteries, are not subject to the other provisions of RID/ADR including special provision 376 and paragraph 2.2.9.1.7, if they meet the following conditions:

- (i) The provisions of packing instruction P 909 of 4.1.4.1 apply except for the additional requirements 1 and 2;
- (ii) A quality assurance system is in place to ensure that the total amount of lithium cells or batteries per wagon or large container/ per transport unit does not exceed 333 kg;

NOTE: The total quantity of lithium cells and batteries in the mix may be assessed by means of a statistical method included in the quality assurance system. A copy of the quality assurance records shall be made available to the competent authority upon request.

- (iii) Packages are marked "LITHIUM BATTERIES FOR DISPOSAL" or "LITHIUM BATTERIES FOR RECYCLING" as appropriate. If lithium batteries in equipment are carried unpackaged in accordance with packing instruction P 909 (3), this marking may also be affixed to the external surface of the wagons/vehicles or containers."
