

**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

**Working Party on the Transport of Dangerous Goods**

**Joint Meeting of the RID Safety Committee and the  
Working Party on the Transport of Dangerous Goods**  
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**TRANSPORT CONDITIONS OF USED BATTERIES**

**related to document TRANS/WP.15/AC.1/2005/24 and INF.13 by EBRA**

**Transmitted by the Government of Netherlands**

**Introduction**

Recently a EU Directive concerning the collection, treatment, recycling and disposal of waste batteries has been agreed at a political level. See proposal for a Directive 15995/04 ADD 1REV 1 of 20<sup>th</sup> December 2004. Therefore it might be expected that the transport of waste batteries will increase enormously throughout Europe. For that reason a clear and feasible regulation for the transport requirements of these flows of waste batteries is necessary.

Therefore the Netherlands welcomes the initiative by the European Battery Recycling Association (EBRA) to discuss this issue in document TRANS/WP.15/AC.1/2005/24. With this information paper we describe the present practice in the Netherlands for collecting waste batteries and offer some suggestions in order to solve the problems.

**Collection of household batteries in the Netherlands**

For many years household batteries have been collected in the Netherlands in order to prevent that batteries disappear uncontrolled in the environment. Since 1995 a special organization (Stibat) is charged with the collection of batteries in the Netherlands. A substantial part of all batteries are those coming from households. A much smaller part concerns industrial batteries but they are collected separately in an other system.

Household batteries.

Household batteries are dry batteries. Most of them are of the zinc carbon/alkaline type but in the last few years also Li-batteries for example those coming from telephones and notebooks appear in the flow of batteries. In practice the flow contains less than 2 % of lithium batteries at this moment.

Due to an increasing amount of application of Li batteries the percentage of Li-batteries in the flow is expected to increase slowly, by tenth of percents per year. This flow of household batteries is up to now not treated as dangerous goods for transport in the Netherlands.

In order to reach the goal of collecting the batteries it is important that the consumer can deliver the batteries without problems. In the Netherlands batteries are collected at almost 11.000 places. In many cases supermarkets and grammar schools. The management of the supermarkets and schools is informed which batteries can be collected and which not and what to do if a “forbidden” battery is offered. There is also an instruction how to deal with the batteries and how they can be handled safe. It is essential that no accidents occur at these places with many people and children. The collection system works on a voluntary basis and therefore it is important to avoid any accident because this could disturb the system.

In practice 2H2 drums of 60 litre are used with special openings in order to prevent that other then “normal” batteries are collected. The content of the drums is collected regularly in special cars in big boxes of 600 litre. The personnel is qualified and special measurements are taken in order to prevent dangerous situation. For example in the car sand is always present to extinguish a starting fire. Furthermore hand- and eye protection are mandatory (safety spectacles and gloves)

In the Netherlands about 2.500.000 kg batteries are collected annually in this way without any problem. It is considered as a safe and effective way of collecting household batteries.

After collection all these batteries are transported to one place and in a special sorting process divided in 10 separate types of batteries for further recycling/disposal. One of those types is the Li battery. After sorting out the batteries are transported to places where recycling or disposal can take place. After sorting the flow is clearly defined.

### **Collection of Li batteries**

In the Netherlands Li batteries and Li ion batteries are also collected in photo shops and computer shops and in those cases the amount of lithium can be much higher. However this flow of batteries can be handled with the new sp 636 in connection with packing instruction P903b).

So the problem is concentrated on the high volume flow of household batteries, most of the carbon zinc/alkaline type which contain limited amounts of Li batteries and are transported from collection point to the intermediate facility (sorting point).

### **Suggestions to solve the problems**

- The first point is that without considering the presence of Li-batteries it must be clear that the stream of household batteries is not subject to ADR provision. As stated earlier this interpretation has been used in the Netherlands but reading carefully sp 304 and also sp 598 under (b) only those batteries which are protected against short circuits are not subject to ADR. However the used batteries collected in the drums and/or boxes are not individually protected against short circuits. In our view it is not necessary to treat

this flow of batteries as dangerous goods. If this view is accepted by the Joint Meeting we feel that amendments are necessary in order to make that clear.

- The second point is the appearance of Li batteries which are clearly different from the alkaline type batteries from the point of view of hazard. In practice it is difficult to prevent small amounts of Li-batteries in the large alkaline stream and as long as the amounts of lithium batteries is limited (less than 5 % for example) we feel that the stream could be treated at the same manner as the alkaline battery stream. In order to prevent that larger percentages of Li-batteries appear in the stream it is necessary to evaluate from time to time the amount of Li-batteries in the stream.
  
- For flows with a larger amount of Li-batteries the existing regulation under sp 636 in connection with P903b) should apply.

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