



**EEB recommendations
on Commission proposal for
a directive on batteries and accumulators and spent batteries
and accumulators (COM(2003)723)**

1 June 2004

Dear Minister,

The EEB welcomes the long awaited Commission proposal for new directive on batteries and accumulators and spent batteries and accumulators, repealing 91/157/EEC and would like to give the following comments and recommendations towards the forthcoming Environment Council discussions, starting on the 8th of June.

While we welcome the establishment of collection targets for all batteries, we believe that the Commission proposal has **two major deficiencies: no phase-out of cadmium and lead in batteries, and an inadequate and insufficient collection target for waste batteries and accumulators** .

These deficiencies were rectified by the European Parliament, which voted for a phase-out of cadmium and lead, with a list of exemptions where adequate substitutes were considered not to be fully available yet, and for higher relative collection targets (50% of annual sales in four years after transposition, 60% of annual sales in six years after transposition), rather than an absolute target of 160gr per inhabitant and year in four years). We call on you to support these key amendments of the European Parliament, which are fully in line with established EU environmental legislation and policy.

Cadmium

Batteries and accumulators account for 75% of the use of cadmium. Already in January 1988, a Council resolution invited the Commission to pursue without delay the development of specific measures for a Community action program to combat environmental pollution by cadmium. The Resolution stresses the "*limitation of the uses of cadmium to cases where suitable alternatives do not exist*" as a major element of the strategy for cadmium control in the interests of the protection of human health and the environment¹. Alternatives to rechargeable nickel-cadmium batteries are available for almost all uses, which has been shown, not least by a study used by the European Commission in 2000.²

A phase-out of cadmium in batteries and accumulators, rather than collection and recycling targets is also called for by the hierarchy of EU waste management policy, which gives priority to prevention over recycling, in particular for hazardous waste. This approach has already been implemented in the Directive on End of Life Vehicles and in the Directive on Restriction of the use of certain Hazardous Substances in electrical and electronic equipment. It is only logical to follow the same approach for batteries, especially as they represent a far bigger share of the use of cadmium. Finally, such a phase-out is also necessary to reach the goals and targets of the Water Framework Directive, which lists cadmium and its compounds as one out of 10 priority hazardous substances, for which discharges, emissions and losses have to cease within 20 years.

A former European Commission briefing from 2000 showed the feasibility of the *substitution of rechargeable NiCd Batteries*. The ban was considered again in 2003 along side a deposit system for batteries sales to encourage high retrieval and recycling rates.

¹ OJ C 30,4.2.1988.

² Substitution of rechargeable NiCd batteries - A background document to evaluate the possibilities of finding alternatives to NiCd batteries, Prof. Dag Noréus, Stockholm University, Aug. 2000.

However, the final Commission proposal with its separate collection target of NiCd batteries instead of a phase-out stands in stark contrast to established EU environmental legislation and policy on the phase-out of hazardous substances.

Moreover, it is misleading, as it claims to establish a 'closed loop' system, which it claims 'can provide an equivalent level of environmental protection at a lower cost' compared to a ban. This is incorrect, as the proposal does not provide a 'closed loop' (inter alia because the level of the collection target is 80%, not 100%, and as the basis of the collection target is the amount found in the municipal waste stream, while batteries can also be expected to be in other waste streams or thrown directly into the environment). Nor is there any substantiation for such a 'closed loop' providing an equivalent level of environmental protection OR lower costs in the extended impact assessment (See *EEB comments on Commission press release* following Parliament plenary vote, 20 April 2004).

Lead

As regards lead in batteries, the legislative and policy background is largely the same as for cadmium. Lead in batteries should be phased out when alternatives are available. This applies in particular to the widely used zinc-carbon batteries, which have lead levels between 400 and 1400 ppm. Alkaline batteries with lead levels below 40 ppm are sold by many companies. Moreover, these alternative batteries require far less input energy in production (about 2.5 times less) for the same output. Importantly, while they are in general about twice the price of zinc-carbon batteries, they actually deliver four times the energy, which means that they are in fact cheaper, contrary to what might be thought if only the sales price is considered, but not the capacity. As such, a phase-out is justified both on environmental and on economic grounds.

Collection targets

We consider it more appropriate to have equal obligations on all Member States. Given the differences in consumption, this can only be achieved by a relative target on the basis of sales and not on grams of spent batteries for collection. This target should be ambitious. The analysis in the Commission EIA showed the lowest relative cost would be achieved with a 40-50% of sales target, however this is purely economical assessment. Given that collection of batteries already on the market (including hazardous batteries already in use) is important to protect the environment it is justified to adopt the higher target of 50% of sales, and that of 60% for a later date.

In summary, the EEB calls on you and the Environment Council to continue the good work on cadmium and lead phase out by supporting a ban on the marketing of batteries and accumulators containing more than 20 ppm of cadmium or 40 ppm of lead, except where no alternatives are available, and to establish relative collection targets of 50% within four years and 60% within 6 years.

Full recommendations on the Commission proposal on the directive can be found in annexes.

For more information please contact

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Annex

Detailed recommendations on Commission proposal for a directive on batteries and accumulators and spent batteries and accumulators (COM(2003)723)

In full, we call on the European Council to ensure:

- 1) The Directive implements proper **hazardous waste PREVENTION** and deals with current and future risks posed by the use of hazardous compounds, such as cadmium, in batteries by
 - a) Re-instating a **phase-out (ban) of use and marketing of batteries and accumulators containing more than 20 ppm of Cadmium, 5 ppm Mercury and 40 ppm Lead** with only those exemptions strictly necessary (art. 4) as opposed a supposed ‘closed loop’ solution except where no alternatives are available.
 - b) **Deleting the Commission’s proposal for monitoring** the MSW for NiCd batteries as an alternative to a phase-out (art.6 monitoring and annex I monitoring table)
 - c) Requiring that the **Cadmium and other hazardous heavy metals from banned applications should be removed from the production cycle** into permanent storage final storage (in dedicated hazardous waste landfill cells) and ensure that parts of, or treated, batteries cannot be landfilled (art. 11 on disposal),
 - d) Establishing a clear **priority for hazardous substance use prevention and hazardous waste prevention** in objectives of directive (art.1)
- 2) Introduction of **individual producer responsibility (financial guarantees)** for batteries and accumulators (in line with the approach established in art.8 of the WEEE directive), including the collection of spent batteries and accumulators (art.20 financing) and ensure no exceptions (such as disregard of guarantee if self financing) are made (art.22 and 23 guarantees),
- 3) **Producer responsibility covers** the most expensive part of battery collection – **the end-user information campaigns** (art.25 Consumer information)
- 4) An **obligatory deposit system and facilitated end-user collection** to support ensure high levels of take back and collection of the (banned) batteries and **to address the hoarding** issue (art.9 collection schemes) and ensure all member states are required to take measures to encourage consumers – including deposits and mechanisms of high-end user take-back convenience – such as hanging bags regularly on wheely bins (art.25)
- 5) A **collection system for ALL** batteries and accumulators **with collection targets set in terms of consumption** (by % age sales) rather than volume (grams) collectable. Collection targets should include wording to ensure collection target is to be specifically achieved by NiCd batteries too (art.13) **with targets of 50% within four years and 60% within 6 years.**
- 6) **Recycling standards be based on best available technology for health and environment** as well as efficiency (art.15)
- 7) **Voluntary agreements** are not accepted as a basis for achieving the objectives of this proposal , especially for provisions foreseen under the waste shipment regulation (art.33)
- 8) No undermining of the End-of-Life Vehicle Directive battery provisions
- 9) Labelling on battery performance to allow consumer choice

Some additional detailed comments

Ban on marketing of cadmium in batteries

The production of batteries accounts for up to 80% of the cadmium used in the industrial world - more than 10.000 tonnes per year. Experience has shown that collection in Member States has not been able to exceed 60% and could remain as low as 5% with current policy drivers³. Their most likely destination is municipal waste incinerators or landfills (45,5% of portable batteries and accumulators in 2002), where the cadmium can be released into the environment through incinerator air emissions and ashes or via leaching from landfill. The main disposal route is landfilling (about 75%⁴) and the main environmental concern is thus associated to the discharge of leachates into the environment. However, calculation of impacts have been hampered by the fact that it has not been possible to correctly quantify future emissions as there is currently a lack of methodological techniques.

The speed of development of battery technology in recent years indicates that a ban is possible and easily enforced. Experience shows that it is possible to substitute up many applications of the NiCd batteries in use today. Research from the University of Stockholm⁵ showed, already in 2000, that alternatives to the rechargeable Ni-Cad batteries are technologically and economically feasible. Only in a few exceptional cases, such as for example emergency power systems for hospital and avionics applications, which legally may demand a verification process for new products to be used, a longer time period will be needed.

Several industry documents are circulating claiming that batteries and some applications such as power tools should be given a blanket exemption due to a variety of reasons – cost, temperature resistance, charge storage time and peak delivery of power.

The alternatives to NiCd batteries have now been on the market for quite some years, in most product categories, they have advantages or disadvantages compared with NiCd, depending on which producer you talk to. The fact is they have NOT globally been withdrawn, and they OR **other** alternatives still to be developed need to be promoted, including improvements if necessary. The way to do this is to send the correct political signal that use and marketing of batteries and accumulators containing more than 20 ppm of Cadmium, 5 ppm Mercury and 40 ppm Lead will be phased out and NOT to offer a blanket exemption to the category with the biggest usage of Cadmium – power tools. **Viable** alternatives for several applications, including most power tools, are already available; the main challenge to their uptake is the cheaper cadmium technology. Under the substitution principle exemptions should only be foreseen for those applications where **no substitute is technically available**. We do not believe that higher costs or some extreme temperature limitations are socially and environmentally acceptable reasons for blanket exclusions!

Individual Producer Responsibility

Each individual economic operator should be responsible for the financing (but not necessarily operating) the costs of management of their OWN batteries in the system (the collection, recycling and treatment schemes) to ensure clarity in the transposition into national legislation of producer responsibilities and the possibilities for incentives to design better products (feedback of end-of-life impacts to the design phase – so called 'eco-design feedback').

Take-back and mechanisms for high collection rates– the deposit

The establishment of a high collection rate is crucial for the success of the Directive. The directive should ensure the use of instruments ensuring the highest return rate for spent batteries. Deposits have proved to be the best way to achieve high collection targets in other product categories, existing battery systems are

³ Extended Impact Assessment on Battery Directive proposal COM 2003 723 p30

⁴ Extended Impact Assessment on Battery Directive proposal COM 2003 723 p 10

⁵ Substitution of rechargeable NiCd batteries - A background document to evaluate the possibilities of finding alternatives to NiCd batteries, Prof. Dag Noréus, Stockholm University, Aug. 2000.

reaching the point that they are driven to introducing financial incentives (prizes etc) in order to **get around the hoarding effect**. The hoarding effect is a considerable barrier to high collection rates and ensuring that the batteries stay out of unsorted waste. There are few other solutions available to address hoarding. Costs for such a deposit system may seem considerable but as the economic model of the study of Bio Intelligence shows⁶, this is also the case with other systems if high collection rates should be reached.

Recycling –best technology for health and environment

The technology for recycling should be based on basis of the best available technology – making clear that ‘best’ is associated also to worker health and environmental performance. There are some recycling technologies with very poor environmental and health performance which is of great concern when handling such potentially toxic substances.

END

⁶ “Impact assessment on selected policy options for revision of the battery directive, Bio Intelligence, July 2003)