Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Reference: WA II 3 - 30 114-4/3

Ordinance on the Return and Disposal of Used Batteries and Accumulators (Battery Ordinance - BattV)*)

`27. 3. 1998

On the basis of Article 23, nos. 1, 2, 4, 5 and 6, Article 24, paragraph (1), nos. 1, 2, 3 and 4, paragraph (2), nos. 1, 2 and 4 and Article 57, each in conjunction with Article 59, and on the basis of Article 12, paragraph (1), nos. 1 and 2 of the Closed Substance Cycle and Waste Management Act of 27 September 1994 (Federal Law Gazette I, page 2705), the Federal Government, after hearing the parties involved and taking into account the rights of the German *Bundestag* <Federal Parliament>, hereby decrees the following:

*) This Ordinance serves to implement Council Directive 91/157/EEC of 18 March 1991 on Batteries and Accumulators Containing Certain Dangerous Substances (Official Journal of the European Communities No. L 78, page 38) and Commission Directive 93/86/EEC of 4 October 1993 on adapting to technical progress Council Directive 91/157/EEC on Batteries and Accumulators Containing Certain Dangerous Substances (Official Journal of the European Communities No. L 264, page 51).

The obligations pertaining to Council Directive 83/189/EEC of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations (Official Journal of the European Communities No. L 109, page 8), most recently amended by the European Parliament and Council Directive 94/10/EC of 23 March 1996 (Official Journal of the European Communities No. L 100, page 30), have been observed.

Section 1

General Provisions

Article 1 Waste Management Objectives

The aim of this Ordinance is to reduce the entry of harmful substances from batteries into waste, by

- 1. prohibiting the circulation of certain batteries containing harmful substances
- ensuring that used batteries are returned and properly and harmlessly recovered in accordance with the provisions of the Closed Substance Cycle and Waste Management Act, and that those batteries which cannot be recovered are disposed of in a manner compatible with public welfare,
- 3. encouraging the production of long-life batteries which can be re-used several times.

Article 2 Definition of Terms

- (1) In the sense of this Ordinance,
- 1. "batteries"
 - shall refer to sources of electrical power consisting of one or more non-rechargeable primary cells or rechargeable secondary cells (accumulators) obtained from the direct conversion of chemical energy;
- "batteries containing harmful substances" shall refer to
 - a) batteries containing more than 25 milligrams of mercury per cell, excluding alkali manganese batteries,
 - b) alkali manganese batteries containing more than 0.025 percentage by weight of mercury,
 - c) batteries containing more than 0.025 percentage by weight of cadmium,
 - d) batteries containing more than 0.4 percentage by weight of lead;

- 3. "starter batteries" shall refer to accumulators normally used in motor vehicles for the purpose of starting, ignition and illumination;
- 4. "other batteries" shall refer to all other batteries which do not fall under the scope of number 2 or number 3.
- (2) In the sense of this Ordinance, the term "manufacturer" shall refer to anyone who, either commercially or within the context of a commercial company or public institution and within the scope of validity of this Ordinance
- manufactures batteries or has batteries manufactured on his behalf, irrespective of whether such batteries bear a trademark or if so, which one; in the case of batteries not bearing a trademark, the person who first circulated them within the scope of validity of this Ordinance shall be deemed the manufacturer;
- 2. introduces batteries into the scope of validity of this Ordinance, at whatever commercial level, and circulates them there for the first time.
- (3) In the sense of this Ordinance, the term "distributor" shall refer to anyone who sells batteries to end users, at whatever commercial level, including mail order distribution.
- (4) Furthermore, in accordance with paragraphs (2) or (3), the term "manufacturer" or "distributor" in the sense of this Ordinance shall also refer to anyone who manufactures or circulates appliances with permanently installed "other" batteries which cannot be effortlessly removed when the appliance reaches the end of its service life.
- (5) Furthermore, in accordance with paragraphs (2) or (3), the term "manufacturer" or "distributor" in the sense of this Ordinance shall also apply to anyone who manufactures or circulates one of the appliances with permanently installed batteries listed in Annex 2 or any other equipment containing batteries.
- (6) "End user" in the sense of this Ordinance shall refer to the person who uses the batteries or appliances containing permanently installed batteries or for whom the batteries first become waste.

Section 2

Return, recovery and disposal obligations for batteries containing harmful substances

Article 3 Obligations on the part of manufacturers and distributors

Manufacturers and distributors may only circulate batteries containing harmful substances within the scope of validity of this Ordinance, subject to the requirement that they must ensure that end users are able to return batteries containing harmful substances in accordance with the provisions of Articles 4 and 5.

Article 4 Obligations on the part of manufacturers

- (1) Manufacturers are obliged to accept, free of charge, the return of any batteries containing harmful substances which have been accepted for return by the distributors pursuant to Article 5 or collected by a public waste management authority pursuant to Article 9, and to recover these in accordance with the provisions of the Closed Substance Cycle and Waste Management Act, and to dispose of any batteries which cannot be recovered.
- (2) Manufacturers must ensure the return of used batteries containing harmful substances by setting up or participating in a joint return system which satisfies the requirements pursuant to sentence 2. The return system must
- 1. be accessible to all manufacturers on the same terms,
- 2. accept the return of all batteries containing harmful substances, irrespective of their nature, brand and origin,
- 3. collect, free of charge, the batteries containing harmful substances from the collection points agreed with the distributors or the collection points provided by public waste management authorities, and convey them to recovery or disposal,
- 4. provide, free of charge, suitable containers at the collection points,

- put out to tender such waste management services as the logistics, return, transportation, sorting and recovery of batteries and disposal of non-recoverable batteries, using a procedure which ensures a competitive award, for a maximum of three years
- 6. take measures to secure financing, by dividing the costs remaining after return, recovery and disposal, including value added tax and the necessary overheads, amongst the individual manufacturers in proportion to their share of the previous year's sales (measured in terms of the weight of batteries, classified into systems and type categories), and collecting the appropriate contributions from the individual manufacturers,
- disclose, at least once a year, the costs of accepting, sorting, recovering and disposing
 of the returned batteries containing harmful substances, classified into systems and type
 categories.

The return system may invoice the cost of sorting, recovery or disposal of segregated batteries containing harmful substances to any manufacturers not belonging to the return system.

- (3) Paragraph (2), sentence 1 shall not apply insofar as a manufacturer is able to prove to the responsible authority that he has set up his own return system for the batteries containing harmful substances circulated by him. By the end of the second year following its establishment at the latest, this system must ensure the same level of return as that achieved by the joint return system pursuant to paragraph (2). In such cases, the manufacturer may limit his acceptance pursuant to paragraph (1) to return of the particular type and brand of batteries containing harmful substances circulated by him. He shall reimburse the distributor and public waste management authorities for the costs incurred to them in connection with segregating and handing over the batteries containing harmful substances circulated by that manufacturer.
- (4) Paragraph (2) shall not apply to the manufacturers of the batteries specified in Article 8, insofar as an agreement has been reached pursuant to this regulation, nor to the manufacturers of starter batteries.

Article 5 Obligations on the part of distributors

- (1) Anyone acting as a distributor who sells batteries containing harmful substances to end users shall be obliged to accept, free of charge, the used batteries containing harmful substances for return by the end user, either at the point of sale or in its immediate vicinity. The acceptance obligation pursuant to sentence 1 shall be confined to the type of batteries sold or previously sold by the distributor and to the quantity normally disposed of by end users.
- (2) The distributor is obliged to convey the batteries containing harmful substances accepted by him for return to a manufacturers' return system pursuant to Article 4, paragraph (2) or (3).

Article 6 Starter batteries

- (1) Distributors who sell starter batteries to end users are obliged to levy a deposit of 15 German Marks, including value added tax, if the end user fails to return a used starter battery at the time of purchasing the new battery. This deposit shall be refunded upon return of a starter battery. Additionally, the distributor may issue a deposit token when levying the deposit and may make reimbursement of the deposit conditional upon the return of the deposit token.
- (2) Articles 3, 4, paragraph (1) and Article 5 shall apply accordingly.
- (3) Where starter batteries built into vehicles are sold or passed on to end users, the deposit obligation shall not apply

Article 7 Obligations on the part of end users

The end user is obliged to return waste batteries containing harmful substances to a distributor or to a collection point set up for this purpose by the public waste management authorities.

Article 8 Exceptions

In the case of batteries containing harmful substances which are used for special purposes, particularly as drive batteries or stationary batteries, in commercial, or other business enterprises or public institutions, the manufacturers, distributors and end users may agree the type of return, as well as the costs of return, recovery and disposal, notwithstanding Articles 4 and 5.

Article 9 Involvement of the public waste management authorities

- (1) As well as distributors, the public waste management authorities shall likewise be obliged to accept, free of charge, the return of used batteries containing harmful substances by private end users or operators of small businesses to stationary or mobile collection facilities for waste containing harmful substances from private households and small businesses.
- (2) The public waste management authorities are obliged to make the batteries accepted by them pursuant to paragraph (1) available for free collection by a manufacturers' return system pursuant to Article 4, paragraph (2) or (3).

Article 10 Success monitoring

- (1) By 31 March of each year, the joint manufacturers' return system shall prepare a report for the supreme *Land* authority responsible for waste management or another authority appointed by it. This report shall contain information on
- 1. The weight of the batteries circulated in the preceding year, classified into systems and type categories
- 2. The weight of the batteries accepted for return in the preceding year, classified into systems and type categories
- 3. The qualitative and quantitative results of recovery and disposal
- 4. The total prices paid for sorting, recovery and disposal, likewise classified into systems and type categories.

Sentence 1 shall apply accordingly to manufacturers with their own return system pursuant to Article 4, paragraph (3).

(2) Manufacturers who set up their own return system pursuant to Article 4, paragraph (3) or who opt out of the joint return system pursuant to Article 4, paragraph (2) must notify the responsible authority of this fact, in writing, within three months.

Section 3

Labelling, bans on circulation

Article 11 Labelling

- (1) Prior to circulation, the manufacturer shall label batteries containing harmful substances as shown in Annex 1. If batteries containing harmful substances were manufactured or imported into the territory of the European Communities prior to the entry into force of this Ordinance, they may continue to be circulated unlabelled for a period of six months after the entry into force of this Ordinance.
- (2) Additional, voluntary labelling is permissible, insofar as this provides the consumer with additional information about the recovery of batteries and does not contradict any label pursuant to paragraph (1).

Article 12 Notification obligation

Anyone who sells batteries containing harmful substances to private users on a commercial basis shall notify customers at the point of sale, by means of easily recognisable and legible notice boards,

- 1. that after use, the batteries can be returned free of charge to the point of sale or its immediate vicinity,
- 2. that the end user is obliged by law to return used batteries. The same notice boards shall also
- 3. explain the meanings of the symbols pursuant to Annex 1, nos. 1 and 3.

Article 13 Prohibitions

- (1) The circulation of
- 1. alkali manganese batteries designed specifically for long-term use under extreme environmental conditions with a mercury content of more than 0.05 percent by weight, and

- 1. alkali manganese batteries not falling under the scope of number 1 with a mercury content of more than 0.025 percent by weight
- is prohibited. Sentence 1 shall not apply to alkali manganese button cells or batteries composed of alkali manganese button cells.
- (2) The circulation of appliances which
- 1. house batteries containing harmful substances, and
- are not designed in such a way as to ensure effortless removal of the battery by the user at the end of the battery's useful life

is prohibited.

Sentence 1 shall not apply to appliances from the categories listed in Annex 2.

- (3) Circulation in the sense of paragraph (1) shall not apply insofar as
- 1. the *Bundeswehr* <federal army> is unable to dispense with the use of batteries of the type specified in paragraph (1) in order to maintain specific technical systems
- 2. measures are taken to ensure that such batteries are returned to the manufacturer immediately after use and
- 3. the manufacturer has given its undertaking to the Bundeswehr to accept the return of these batteries and to recover them in accordance with the provisions of the Closed Substance Cycle and Waste Management Act, or to dispose of any batteries not recovered.

Article 14 Appliances with permanently installed batteries

For manufacturers, distributors and end users of appliances from the categories listed in Annex 2, the provisions of this Ordinance, with the exception of Article 4, paragraph (2) and Article 9, shall apply analogously to the entire appliance, unless an obligation exists to accept the return of the appliance under other regulations. Prior to circulation, the manufacturers of such appliances shall enclose an information sheet for the end user drawing his attention to the fact that batteries containing harmful substances are installed in the appliance and that he is obliged to duly return the appliance.

Section 4

Return, recovery and disposal obligations for other batteries

Article 15 Return, recovery and disposal obligations

Articles 1 to 5, 7, 9, 10 and 12 shall also apply accordingly to other batteries. The manufacturer shall dispose of other batteries separately from domestic waste, unless they can be recovered.

Section 5

Appointment of third parties, administrative offences

Article 16 Appointment of third parties

Insofar as manufacturers and distributors utilise the services of third parties in order to fulfil the obligations specified in this Ordinance, Article 16, paragraph (1), sentences 2 and 3 of the Closed Substance Cycle and Waste Management Act shall apply accordingly.

Article 17 Administrative offences

Anyone who intentionally or negligently

- 1. circulates batteries containing harmful substances, contrary to Article 3
- 2. fails to accept the return of batteries containing harmful substances or other batteries, contrary to Article 4, paragraph (1), also in conjunction with Article 15, sentence 1
- 3. fails to recover or duly dispose of returned batteries, contrary to Article 4, paragraph (1)
- 4. fails to ensure the return of batteries containing harmful substances, contrary to Article 4, paragraph (2), sentence 1

- 5. fails to accept the return of, or convey to a return system, batteries containing harmful substances or other batteries, contrary to Article 5, paragraph (1), sentence 1 or paragraph (2), each likewise in conjunction with Article 15, sentence 1
- 6. fails to levy a deposit, or fails to refund a deposit or to do so on time, contrary to Article 6, paragraph (1), sentence 1 or 2
- 7. fails to notify the authorities, or fails to do so correctly, or completely, or in the prescribed manner, or on time, contrary to Article 10, paragraph (2)
- 8. fails to label batteries containing harmful substances, or fails to do so correctly, or completely, or in the prescribed manner, or on time, contrary to Article 11, paragraph (1), sentence 1
- 9. fails to provide notification, or fails to do so correctly, or completely, or in the prescribed manner, contrary to Article 12
- 10. circulates batteries or appliances contrary to Article 13, paragraph (1), sentence 1 or paragraph (2), sentence 1
- 11. fails to enclose information or fails to do so correctly, or completely, or on time, contrary to Article 14, sentence 2
- 12. fails to submit other batteries for disposal separately from domestic waste, contrary to Article 15, sentence 2

shall be considered to have committed an administrative offence as defined by Article 61, paragraph (1), no. 5 of the Closed Substance Cycle and Waste Management Act.

Article 18 Entry into force

Articles 1, 2, 11, 13, 14 sentence 2, 16 and 17 nos. 7, 9 and 10 shall enter into force on the day following promulgation. The other provisions of this Ordinance shall enter into force on the first day of the sixth calendar month following promulgation.

The Bundesrat < Upper House of Parliament> has given its approval.

Annex 1

- 1. Batteries subject to labelling must bear one of the following two pictograms, consisting of a refuse bin crossed out and the chemical symbol of the heavy metal which is decisive for the battery's classification as containing harmful substances. The choice of pictogram used shall be made by the party whose obligation it is to provide labelling pursuant to Article 11, paragraph (1). Both pictograms have the same meaning.
- 2. The dimensions of the pictogram shall be three percent of the area of the largest side of the battery, but no larger than 5 cm x 5 cm. In the case of cylindrical batteries, the pictogram shall cover three percent of half the cylinder sheathing, but no larger than 5 cm x 5 cm.

 If the size of the pictogram is less than 0.5 cm x 0.5 cm due to the dimensions of the
- 3. The chemical symbol (Cd, Hg or Pb) is portrayed beneath the pictogram. The dimensions of the symbol shall account for at least one-quarter of the dimensions prescribed for the pictogram.

battery, the pictogram may be printed on the packaging in a size of 1 cm x 1 cm.

4. The pictogram and symbol must be designed and applied in such a way that they are readily visible, legible and permanent.

Annex 2

List of excluded appliance categories pursuant to Article 13, paragraph (2), sentence 2

- 1. Appliances in which the battery containing harmful substances is soldered, welded or permanently connected in some other manner to the contacts in order to ensure an uninterrupted power supply for intensive industrial purposes and to back-up the memory content and data of data processing and office equipment, provided the use of batteries containing harmful substances is essential for technical reasons.
- 2. Appliances used for scientific or professional purposes which contain reference cells, and medical appliances containing batteries which contain harmful substances which serve to preserve vital functions, as well as pacemakers, provided their uninterrupted operation is crucial and the batteries can only be removed by qualified staff.
- 3. Portable appliances whereupon replacement of the batteries containing harmful substances by unqualified staff could pose a risk to the user or impair the use of the appliances, and operating equipment which is used in very sensitive environments for example, in the presence of volatile substances.
- 4. Appliances in which the battery containing harmful substances is soldered, welded or permanently connected to the contacts in some other manner, insofar as such appliances serve the safety of the user, and in which permanent connection of the battery containing harmful substances to the appliance is necessary in order to ensure proper functioning of the appliance.

to the Cabinet Bill submitted by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of 26 November 1997

Preface

to the

<u>Draft Ordinance on the Return and Disposal</u> of Used Batteries and Accumulators (Battery Ordinance - BattV)

A. Objective

The object of this Ordinance is, firstly, the smaller proportion (in numerical terms) of batteries and accumulators described as "batteries containing harmful substances", primarily due to their content of heavy metals such as mercury, cadmium or lead (volume sold in 1994 excluding starter batteries: 3,500 tonnes). They range from button cells, to nickel cadmium accumulators, to starter batteries and special accumulators for industry and commerce, as well as for institutions such as railways and the armed forces. EC legislation must be implemented in such cases.

Of batteries containing harmful substances, starter batteries for the motor vehicle industry, despite the fact that their numbers have declined compared with other battery systems (approximately 12 to 14 million units per annum), require particular monitoring by virtue of their harmful substance potential (approximately 180,000 tonnes of lead per annum). Although a high level of return and recovery has been achieved to date with these particular types of battery, even small quantities of starter batteries can lead to environmental pollution unless they are returned to the economic cycle.

Secondly, the return, recovery and disposal system envisaged for batteries containing harmful substances is also to be applied to "other batteries". These batteries already account for almost 50% of all batteries returned to the trade by consumers. In 1996, 23,130 tonnes of

"other batteries" were sold, the bulk of which were zinc carbon batteries (370 million units) and alkali manganese batteries (310 million units).

B. Solution

On the basis of the powers granted by the Closed Substance Cycle and Waste Management Act (Articles 12, 23, 24, 57 and 59 of the KrW-/AbfG), the following rulings are implemented:

The trade is obliged to accept, free of charge, the batteries it sells for return by the consumer after use, and to pass them on to the manufacturers for recovery or disposal.

Given the particular structure of the battery market, as a general principle, the battery manufacturers are to meet their return, recovery and disposal obligations within the context of a jointly operated return system. Individual manufacturers may also operate their own return system, provided this ensures the same success, in terms of return levels, as the joint return system operated by the other manufacturers.

The trade shall notify consumers at the point of sale about the opportunity of free return.

The consumer is obliged to return used batteries to the trade or to existing return points provided by the public waste management authorities. The manufacturers shall also accept, free of charge, the return of those batteries collected by the public waste management authorities for recovery or disposal.

The prohibition and labelling regulations pursuant to Council Directive 91/157/EEC of 18 March 1991 on Batteries and Accumulators Containing Dangerous Substances and Commission Directive 93/86/EEC to amend Directive 91/157/EEC shall be implemented.

The Federal Council's provisions pursuant to document 461/97 (resolution) are predominantly of a clarifying and concretising nature, without significantly altering the original version of the draft Ordinance. As such, the Federal Government's concept on the return and disposal of used batteries and accumulators has been preserved, and the Federal Council's measures can

therefore be endorsed. The reasoning of the Ordinance as per the Cabinet resolution of 28 April 1997 has been adapted in line with the Federal Council's provisions.

Reasoning

I. General

1. The current situation

Every year, some 857 million batteries and accumulators are circulated in the Federal Republic of Germany. The continuing rise in the consumption of batteries and accumulators is linked to the escalating use of electrical and electronic appliances in private households and industry.

Zinc carbon and alkali manganese batteries account for the bulk of these, with 680 million units per annum (370 million zinc carbon batteries, and 310 million alkali manganese batteries). Thanks to technical developments in recent years, most of these do not contain mercury or cadmium. However, with due regard for the Technical Instructions on Waste from Human Settlements of 14 May 1993, by virtue of their zinc content, disposal of such batteries in domestic waste is only temporarily permissible, insofar as such batteries occur distributed amongst domestic waste. In this Ordinance, they are covered by the term "other batteries" (volume sold in 1996: 23,130 tonnes).

The object of this Ordinance is, firstly, the smaller proportion (in numerical terms) of batteries and accumulators described as "batteries containing harmful substances", primarily due to their content of heavy metals such as mercury, cadmium or lead (volume sold in 1994 excluding starter batteries: 3.500 tonnes). They range from button cells, to nickel cadmium accumulators, to starter batteries and special accumulators for industry and commerce, as well as for institutions such as railways and the armed forces. EC law must be implemented in such cases. Of batteries containing harmful substances, starter batteries for the motor vehicle industry, despite the fact that their numbers have declined compared with other battery systems (approximately 12 to 14 million units per annum), require particular monitoring by virtue of their harmful substance potential (approximately 180,000 tonnes of lead per annum). Although a high level of return and recovery has been achieved to date with these types of battery in particular, even small quantities of

starter batteries may lead to significant environmental pollution if they are not returned to the economic cycle.

Secondly, the return, recovery and disposal system envisaged for batteries containing harmful substances is also to be applied accordingly to so-called "other batteries". In due course, the Federal Government will investigate whether the voluntary measures for other batteries proposed by the battery industry and trade will render this compulsory ruling unnecessary.

2. Measures initiated by the Federal Environment Ministry to date

In order to counteract the environmental risks of used batteries - particularly as a result of mercury, cadmium and lead - on 9 September 1988, the Federal Environment Ministry effected a voluntary commitment from industry and trade, which led to the following results:

- 1. The mercury content of alkali manganese batteries was reduced from 0.35% to 0.1% by the end of 1989. In absolute terms, this meant a reduction in the mercury proportion of alkali manganese batteries from 19.5 tonnes to around 5 tonnes per annum. The major battery manufacturers have since reduced the mercury content of their batteries to 0.025%, and in some cases even lower, so the actual reduction has been even more pronounced.
- 2. Today, the mercury content of most zinc carbon batteries has been reduced from 0.01% to zero.
- 3. The following are labelled with a recycling symbol and accepted for return by the trade:
 - Maintenance-free, sealed small accumulators
 - Gas-proof nickel cadmium accumulators
 - Starter batteries
 - Primary button cells
 - Alkali manganese batteries with a mercury content of 0.1% or more of the total weight.

3. Voluntary measures and administrative law

Industry has devoted substantial resources to developing a return and recovery system for batteries containing harmful substances which are accepted for return via the trade. Nevertheless, this system failed to produce the anticipated results. The key factor was that, despite intensive publicity work by trade and industry, "local" shops were often inadequately informed about the voluntary commitment and their own role as intermediary between the manufacturer and the consumer, or failed to comply with the voluntary measures, or did so inadequately.

What is more, consumer behaviour has been disappointing. In many cases, even where the option of return was provided, the take-up has been low. According to a survey by Dortmund University conducted on behalf of the Federal Environmental Agency, in 1992, no more than 36% of batteries containing harmful substances were returned, depending on the type of battery. This finding was confirmed in 1996 by a survey conducted by Berlin Technical University.

In summer 1995, battery manufacturers offered to supplement their previous commitments with additional voluntary measures: Primarily, these involved improving the labelling of batteries containing harmful substances (by means of appropriate colouring in addition to the symbols prescribed by the EC), and partially replacing nickel cadmium accumulators with nickel hydride accumulators. The manufacturers also announced that they would cease to market mercury oxide button cells with effect from 1999.

At the same time, the battery industry and trade submitted proposals for voluntary measures concerning the return, recovery and disposal of "other batteries". On 7 November 1995, the Federal Cartel Office objected to the required joint approach on the grounds of competition law.

In July 1996, the battery industry and trade applied to the EC Commission for exemption of their planned voluntary co-operative measures under Article 85, paragraph (3) of the EC Treaty, due to their European implications. The Commission

has yet to reach a decision.

To the extent that the principle of product responsibility prescribed by Article 22 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG> is to be implemented by manufacturers and distributors via return, recovery and disposal measures, this can only be achieved, apart from a few exceptions, via joint action on the part of the industry involved. Above all, the Federal Cartel Office's demand for a return system based on brands and harmful substance content would violate the principle of proportionality: Generally speaking, consumers return used batteries of all types and brands to the collection points. Sorting and subsequent brand-based recycling would lead to disproportionately high costs. Brand-based recycling of used batteries would have to extend to the distributor, but he would be able to refuse to accept those brands of used batteries not sold by him. This would inevitably result in consumers disposing of batteries via the rubbish bin.

Consequently, in order to safeguard the existing return systems, this draft Ordinance is based on a joint manufacturers' return system for all batteries. Only this type of system is capable of meeting the objectives of the EC Battery Directives.

The willingness to implement further voluntary measures for batteries containing harmful substances does not render this Ordinance unnecessary, since the EC Battery Directives can only be formally implemented via national statutory rulings.

4. EC Battery Directives

The contents of the German Battery Agreement of 1988 were largely incorporated by the EC into the Directive on Batteries and Accumulators Containing Certain Dangerous Substances (91/157/EEC) of 18 March 1991 (EC Battery Directive), which must now be implemented by all EC states. The voluntary commitments previously undertaken by industry and commerce in Germany will thereby become generally legally binding. On 4 October 1993, the Battery Directive was supplemented by Commission Directive 93/86/EEC, which prescribes Europeanwide labelling of all batteries which fall under the scope of the Battery Directive.

The Battery Directive in conjunction with Council Framework Directive 75/442/EEC on Waste of 15 July 1975 (amended by Directive 91/156/EEC) aims to avert, limit or eliminate environmental hazards posed by the disposal of batteries and accumulators, and to ensure expedient management of raw material resources. In this respect, the "polluter pays" principle applies.

Essentially, the EC Battery Directive demands the following measures:

- The prohibition of alkali manganese batteries containing more than 0.025 percentage by weight of mercury with effect from 1 January 1993 (0.05 percentage by weight of mercury is permissible for certain applications, e.g. in extreme temperatures).
- The labelling of batteries and accumulators containing more than 0.025 percentage by weight of cadmium, more than 0.4 percentage by weight of lead, and more than 0.025 percentage by weight of mercury, or more than 25 mg of mercury per cell.
- Batteries and accumulators must not be installed in appliances unless they can be effortlessly removed by the consumer at the end of their service life.
- The establishment of programmes to reduce heavy metals in batteries, to reduce the proportion of batteries in domestic waste, and to ensure the separate disposal of batteries containing harmful substances.
- To organise collection and recovery, if necessary with the introduction of a deposit system.
- To inform the public about the dangers of uncontrolled disposal, labelling, and the manner in which installed batteries can be removed from appliances.

5. Implementation via ordinance

This draft Ordinance essentially follows the pattern of previous Ordinances passed in accordance with Article 14 of the Waste Management Act (obligation to acceptance, labelling, recovery or disposal). However, it is based on the new powers created by the Closed Substance Cycle and Waste Management Act (Articles 12, 23, 24, 57 of the KrW-/AbfG). Accordingly, the contents of the voluntary commitment

of 1988 are to become legally binding; above all, the acceptance obligations will be extended to the trade. In addition, the labelling and prohibition regulations prescribed in the EC Battery Directive are to become compulsory law.

Implementation of the information measures and programmes likewise envisaged in the EC Battery Directive can only be partially achieved by an Ordinance (by informing consumers at the point of sale). In addition to this, information within the context of publicity by the Federal Government and Länder is also addressed.

6. Deposit regulations

The Federal Government has called for the right to prescribe deposit regulations in accordance with the EC Battery Directive. Initially, this instrument is only envisaged for starter batteries, as there have been no indications to date that the EC states neighbouring the Federal Republic of Germany intend to prescribe deposit regulations. For Germany to stand alone in this matter would put a substantial strain on the consumer. To be effective, the deposit would have to be high in order to guarantee its intended purpose - namely, the return of the battery. As such, the deposit would have to be set at a level close to the battery's retail value, meaning that substantial funds would be tied up in the medium and long term. Before enforcing deposit regulations for these groups of products, it is first necessary to ascertain whether or not a satisfactory level of return can be achieved by obligating end users to return their batteries, coupled with an obligation on the part of the trade to accept them, accompanied by targeted consumer information by industry, trade, the Federal Government, the Länder and waste management authorities.

7. Costs

7.1 Public budget costs

7.1.1 Budget expenditure excluding the cost of implementation

The Federal Government, Länder and local governments may incur additional costs as consumers of batteries (cf. Section 7.2).

In future, local governments, as public waste management authorities, will be relieved of the cost of disposing of battery mixtures. Battery mixtures must be disposed of with due regard for the Second General Administrative Regulation on the Waste Management Act (Technical Instruction on Waste); the costs currently amount to around DM 1,000 per tonne of battery mixtures. There is no need to extend the existing local government collection systems.

7.1.2 Cost of implementation

The Federal Government, Länder and local government will not incur any additional costs in conjunction with implementing the Ordinance. Insofar as the Länder are faced with new implementation tasks, e.g. monitoring the labelling requirements (Articles 1 and 12) or the bans on circulation (Article 13), these can be organised in conjunction with existing tasks, with a neutral effect on costs.

7.2 Other costs

Manufacturers and the trade already pass on to consumers the costs incurred in conjunction with their 1988 voluntary obligations on the labelling, acceptance, recovery and disposal of batteries containing harmful substances. The Battery Ordinance will increase the level of return of such batteries, with a corresponding impact on the cost of the acceptance, recovery and disposal of batteries and accumulators containing harmful substances.

This will affect manufacturers and importers of all types of batteries, including starter batteries (car batteries), comprising a total of 13 market leaders and an unquantified number of smaller manufacturers (who account for an 8-10% market share for primary batteries and 22% for accumulators). Retailers who stock batteries will be indirectly affected.

The following account will confine itself to the cost of other batteries, which are generally low in harmful substances, and which account for the bulk of all batteries. For batteries containing harmful substances (particularly accumulators and button cells), there is no alternative other than to pass an ordinance, given

the obligation to implement the EC Battery Directive in conjunction with the provisions of the KrW-/AbfG (Closed Substance Cycle and Waste Management Act).

According to figures supplied by the manufacturers, the additional costs for a single battery are between DM 0.06 and DM 0.28, or a total cost (excluding administrative expenses) of between DM 42 million and DM 188 million per annum.

The cost of the joint return system to be created by manufacturers pursuant to Article 4, paragraph (2) is impossible to quantify at the present time. However, it can be assumed that at least one office will need to be set up, with operating costs of DM 250,000 per annum (with three employees).

Despite the cost to industry, the envisaged ruling is necessary from the points of view outlined under sections 1 to 6.

In conjunction with its voluntary commitment of 1988, the affected industry has already carried out some of the groundwork vis-à-vis the return and recovery/disposal of batteries containing harmful substances. The industry accepts that these measures should be extended to cover "other" batteries, provided it is able to determine the type of recovery itself within the context of the provisions of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Effects on producer prices are anticipated as a result of the return, recovery and disposal obligations envisaged in the Ordinance; these will probably be passed on to consumers via the trade. These price effects are already specified in the ordinance powers of the 1986 Waste Management Act. The issue of return regulations for batteries and accumulators pursuant to Article 14 of the Waste Management Act was discussed during the parliamentary debate on the 1986 Waste Management Act; initially, the passing of such regulations was postponed in view of the voluntary measures adopted by the industry in 1988, until such time as the corresponding EC battery directives were passed. Articles 22 to 24

of the Closed Substance Cycle and Waste Management Act adopted and elaborated upon the objectives outlined in Article 14 of the Waste Management Act.

The aforementioned cost increases will affect price levels, particularly consumer price levels. It can be assumed that the bulk of these additional costs will be passed on to the end user.

The return, recovery and disposal obligations for manufacturers and distributors will mean that what were once external environmental costs will now, to a certain extent, affect prices.

II. The individual provisions

Article 1

Article 1 outlines the fundamental waste management objectives vis-à-vis the avoidance, recovery and disposal of batteries and accumulators. These objectives are concretised in the individual provisions of the Ordinance. In particular, these state that the harmful substance content of batteries is to be reduced via prohibitions, and that batteries containing harmful substances must be taken back and recovered. Returned batteries for which no recovery procedure is yet available are to be disposed of in accordance with the relevant provisions of the Closed Substance Cycle and Waste Management Act, including the implementation provisions adopted in this respect.

Article 1 makes provision for Article 6 of the EC Battery Directive, insofar as this demands programmatic statements from the member states in keeping with the objectives of this Directive. In the Federal Republic of Germany, regular dialogue between the Federal Environment Ministry, the battery industry and the trade has proven effective in this respect.

Article 2

First of all, the definitions in Article 2, paragraph (1), nos. 1 and 2 address the definition of terms from Article 2, letter a) and Annex I of the EC Battery Directive. Furthermore, in paragraph (1), no. 1, it is made clear that the term "batteries" also covers secondary cells, known in common parlance as "accumulators".

No. 3 cites starter batteries, as a result of the special regulations in Article 4, paragraph (4) and Article 6. According to paragraph (1), no. 4, "other" batteries refer, not only to zinc carbon and alkali manganese batteries with heavy metal contents below the levels specified in paragraph (1), no. 2, but also to battery systems not yet included in EC law at the time when the EC Battery Directive was passed. In particular, these include lithium, nickel hydride and zinc-air batteries.

Paragraph (2) contains a definition of the term "manufacturer". This not only includes manufacturers in the true sense of the word; persons who have batteries manufactured on their behalf and labelled with their trademark, or who import batteries directly and circulate these for the first time in the Federal Republic of Germany, also fall under the scope of a manufacturer's obligations.

Paragraph (3) covers distributors at all commercial levels, including mail order. Where a trader orders batteries outside the Federal Republic of Germany, either directly or via brokers, dealers or agencies, and then sells them to end users within the scope of validity of the Ordinance, he shall be obligated, not only as a distributor, but also, simultaneously, as a manufacturer pursuant to paragraph (2), no. 2.

Paragraph (4) emphasises the fact that manufacturers and distributors of appliances with permanently installed "other" batteries shall also constitute manufacturers in the sense of this Ordinance, and are thereby subject to the obligations of this Ordinance for the batteries following removal.

Paragraph (5) extends the scope of application of the Ordinance to manufacturers and distributors of the appliances specified in Annex 2. Under Article 13, paragraph (2), sentence 3, they are obliged to accept return of the entire appliance in which

batteries are permanently installed. This would apply, e.g. to a measurement device with built-in batteries containing harmful substances as a power source.

Paragraph (6) defines the term "end user" in the sense of this Ordinance. The term "end user" recurs in Articles 3, 5 paragraphs (1), (7), (8), (9), (12) and (14), which prescribes the primary chain of return obligations from the end user, via the trade, to the manufacturer. The end user is particularly involved in Article 6 (compulsory deposit for starter batteries) and Article 7 (obligation to return).

Article 2 implements Articles 1, 2, 4 and 5 of the EC Battery Directive. Article 2 is based on Article 57 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 3

Article 3 makes the circulation of batteries containing harmful substances conditional upon the fact that manufacturers and distributors must provide end users with the opportunity of return. This provision is based on Article 24, paragraph (1), nos. 1 to 3 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 3 serves to implement Article 7, paragraph (1), sentence 1 of the EC Battery Directive.

Article 4

Article 4 specifies the product responsibilities of manufacturers. Apart from the initial condition outlined in Article 3 - guaranteeing the option of returning used batteries - paragraph (1) stipulates that the manufacturer must accept the return of batteries from the end user free of charge. Via Article 26 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>, manufacturers are obliged to recover or dispose of the used batteries accepted for return in accordance with Articles 5 and 11 of the Closed Substance Cycle and Waste Management Act. As such, paragraph (1) does not establish any new obligations, but instead merely incorporates the

obligations concerning batteries vis-à-vis harmful substances entered into by manufacturers in their first voluntary commitment of 9 September 1988.

Paragraphs (2) and (3) consider the battery market in the Federal Republic of Germany, which is composed as follows:

a) Primary batteries

Of the primary batteries marketed in Germany, around 70% are imported, mainly by the manufacturing companies themselves, whilst the remaining 30% are produced in Germany by one manufacturer. Overall, some 85% of the primary batteries marketed in Germany are imported or produced by just four manufacturers.

b) Rechargeable batteries

The German market for rechargeable batteries is far more differentiated in terms of suppliers. Apart from eight larger suppliers, who together account for a market share of around 70%, the proportion of other suppliers, most of whom are mainly difficult or impossible to identify, is very high. 84% of rechargeable batteries are imported, and only 16% are manufactured in Germany.

- c) Consumers can choose from some 120 different batteries, of varying sizes and types.
- d) Batteries in Germany are sold in over 110,000 distribution outlets of various different kinds, such as specialist retailers, department stores, kiosks and petrol stations.

Given this structure of the battery market and the distribution system, return is only conceivable within the context of a joint system which does not require pre-sorting by the consumers and trade. For this reason, paragraph (2) requires manufacturers to meet their obligations to accept and recover or dispose of the batteries circulated by them by creating a joint return system, or by joining such a system. Paragraph (3) permits individual manufacturers, in exceptional cases, to opt out of such a system, provided they set up their own return system for the batteries circulated by them and this achieves the same level of return as the joint return system pursuant to paragraph (2).

The situation in the battery market justifies the fact that the opportunity granted to

individual manufacturers of establishing their own return system under Article 4, paragraph (3) is conditional upon stringent efficiency criteria based on the return levels achieved by the joint system. In general, such individual return systems would only be considered for special segments where a particular distribution system promises a correspondingly high level of return. It is necessary to avoid a situation whereby several manufacturers joining together to form various different individual return systems could confuse the consumer, thereby preventing the achievement of satisfactory return levels. This would cast doubt on the aspired ecological objective of preventing environmental pollution via high return levels and appropriate harmless disposal separate from domestic waste.

This special provision on the return of used batteries containing harmful substances is justified by virtue of the fact that the distributors and stationary or mobile collection points belonging to the public waste authorities are invariably confronted with a mixture of all systems and type categories of battery on the market. Sorting such battery mixtures and returning individual batteries to their respective manufacturer, classified according to systems and type categories, would generally involve a disproportionate input. In particular, the associated high costs would be unjustifiable, since the batteries, having been sorted according to system, type and manufacturer, would then be treated jointly once again in a recovery system, since the anticipated volume of batteries would not efficiently utilise sufficient capacity to justify the operation of several systems. In terms of volume, the creation of several return systems pursuant to paragraph (2) would also be inefficient and would therefore cast doubt on the aspired objective - namely, to achieve the maximum possible level of return. A system operated jointly by all manufacturers which is obliged to cover all batteries returned to the trade and the public waste management authorities is therefore the method best suited to guarantee compliance with the environmental objectives specified by the EC Battery Directive.

Manufacturers have already set up a joint return system - ARGE BAT - to meet their 1988 voluntary commitment based on similar considerations. In principle, this system has proven effective. However, its efficiency needs to be increased via the measures specified in Articles 7, 9 and 12, particularly with regard to the volume of used batteries covered. By announcing to the Commission of the European

Communities in July 1996 that they plan to continue their voluntary measures, manufacturers have emphasised the fact they feel a joint return system is still the most effective means of meeting their product responsibilities.

The competitive restrictions which may emanate from a return system pursuant to paragraph (2) are inherent in the system. The requirements of the return system outlined in paragraph (2), sentence 1 and in Article 10, paragraph (1) are confined to the extent necessary for correct functioning of the system. In fact, it is questionable whether competitive restrictions in the waste disposal industry would actually arise as a result of the system described in paragraph (2), because to date, no competition has emerged around used batteries in the Federal Republic of Germany. However, in terms of the individual systems and type categories of the batteries on the market, there are no advantages for the respective manufacturers in terms of disposal, because construction of the products is identical, and there is no apparent economic advantage of one brand over another, either in terms of dismantling or the actual recovery of reusable secondary raw materials.

Paragraph (3) describes the requirements for establishing a separate, manufacturer-specific return system. Initially, it does not prescribe a fixed rate of return, just as paragraph (2) likewise refrains from making any such specifications. As this concerns the return levels of used batteries from a specific manufacturer, it is impossible, e.g. for two individual manufacturers to join forces and create a system pursuant to paragraph (3). The yardstick for specifications to paragraph (3), sentence 1 will exist as soon as the joint return system pursuant to paragraph (2) submits its first report, as required under Article 10, paragraph (1). At the appropriate time, it will be up to the legislator to determine whether or not the efficiency of the return system needs to be increased via an amendment to the Battery Ordinance.

Paragraph (4) makes it clear that manufacturers of starter batteries and special batteries are not subject to the obligations pursuant to paragraph (2). In such cases, return systems already exist, whereby the measures pursuant to paragraph (2) are not indicated.

Article 4 is based on Article 24, paragraph (1), no. 2 and paragraph (2), no. 1 of the

Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 4 implements Article 4, paragraph (1) and Article 7, paragraph (1) of the EC Battery Directive.

Article 5

Article 5, paragraph (1) contains the basic obligation of distributors to accept the return of batteries containing harmful substances. This obligation extends to all distributors who sell such batteries to end users. The place of return is the point of sale or a collection point located in its immediate vicinity. Sentence 2 outlines the extent of the distributor's acceptance obligation depending on the type and quantity of batteries. Consequently, a shop which sells watches does not need to accept carstarter batteries but must accept all button cells, even if it only sells silver oxide button cells from one particular manufacturer.

Paragraph (2) obligates the distributor to convey the batteries containing harmful substances accepted by him to the manufacturers' joint return system pursuant to Article 4, paragraph (2) or to an individual manufacturer's return system created in accordance with Article 4, paragraph (3).

Article 5 is based on Article 24, paragraph (1), no. 2 and paragraph (2), no. 1 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>. Article 5 implements Article 4, paragraph (1) and Article 7, paragraph (2) of the EC Battery Directive.

Article 6

Article 6 is intended to ensure the return of starter batteries from the motor vehicle sector, generally arising amongst persons who change the battery themselves. Generally, battery changes are decided at short notice, and occur in petrol stations or vehicle workshops which not only function as service-providers, but also as retailers. In principle, therefore, these starter batteries are guaranteed to end up in recovery systems, and deposit regulations are not required. However, the situation is

different when starter batteries are purchased in department stores and other stores, and the purchaser fails to return the old starter battery at the time of purchase. In such cases, the old battery may be stored for some time in the purchaser's garage or cellar, or may be disposed of with the domestic waste, or even abandoned on the street or on open ground. A deposit of DM 15 is intended to counteract this risk; the level of the deposit is intended to encourage the purchaser to return the battery and retrieve his deposit as soon as possible. The deposit liabilities (levying, refunding) are confined to the relationship between the end user and the distributor. The distributor will generally limit his refund obligation by issuing deposit tokens.

Paragraph (2) makes it clear that the deposit obligations do not affect the distributor's general acceptance obligation pursuant to Article 5 and the manufacturer's acceptance obligation pursuant to Article 4, paragraph (1) of the Ordinance.

It is irrelevant which type or brand of starter battery is returned at the time of purchase or at a later date, since the sole aim is to ensure that used batteries - usually the ones which the customer has been using up until then - are recycled, rather than being disposed of randomly or ending up in domestic rubbish bins.

Paragraph (3) specifies that the deposit obligation shall not apply to starter batteries which enter circulation as built-in components of a new vehicle. In such cases, payment of a deposit would be inappropriate to ensure the return of used batteries, since the last owner of a motor vehicle generally sends it to a scrap yard, and the envisaged deposit cycle (consumer - trade - consumer) would therefore remain open.

Article 6 is based on Article 24, paragraph (1), no. 2 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 6 implements Article 4, paragraph (1) and Article 7, paragraph (1), sentence 1 of the EC Battery Directive.

Article 7

Article 7 makes use of the new powers afforded by Article 24, paragraph (2), no. 2 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>, under which owners may be obliged to return certain waste to the distributor. In the past, it has been found that end users are often reluctant to utilise the options available to return batteries containing harmful substances. To the extent that Article 7 also addresses return to collection points provided by the public waste disposal authorities, the provision is also based on Article 24, paragraph (2), no. 3 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 7 implements Article 4, paragraph (1) and Article 7, paragraph (1) of the EC Battery Directive.

Article 8

Article 8 aims to preserve existing return systems for special batteries or special applications. This refers primarily to major users such as the German railways, Telekom, the German armed forces, the frontier protection authorities and industry, who meet their requirements for special batteries directly from the manufacturer via their own purchasing offices. "Batteries for special purposes" refer, e.g. to stationary nickel cadmium accumulators or drive batteries for vehicles.

The exceptional ruling of Article 8 does not contradict the requirements of Article 1, letters d) and e) and Article 4, paragraph (1) and Article 7, paragraph (1) of the EC Battery Directive, since this merely facilitates a modification to the return system, but does not affect the manufacturer's return and recovery obligation.

Article 8 is based on Article 24, paragraph (1), nos. 2 and 3 and paragraph (2), no. 1 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 9

In the past, the public waste management authorities (municipalities and Land districts) have tended to collect used batteries as secondary to voluntary acceptance by the trade. This is generally implemented via local authority collections of waste containing harmful substances from private households. As such, this does not involve special collections of batteries; nor should such collections be set up by the authorities. Instead, the mobile or stationary collection points for various types of hazardous waste operated by the authorities should merely be made available for the collection of used batteries as well, in order to achieve the highest possible rate of return for used batteries. Above all, this will help ensure that the high proportion of these types of batteries which are still disposed of via domestic refuse bins will be significantly reduced in future. Many authorities already accept used batteries.

The public waste disposal authorities are obliged to accept, free of charge, the batteries brought to them by the waste's owner. The costs for acceptance and provision are offset against the cost benefits resulting from the fact that in future, the manufacturers' joint return system will be required to accept the return of batteries and recover them at its own cost. In addition, the manufacturers are also required to finance the logistics. Article 9 also helps avoid a situation where end users who are willing to return their batteries are prevented from doing so, and would then dispose of their used batteries via the rubbish bin or in some other uncontrolled manner.

By extending the option of return to small businesses, the level of coverage will be significantly increased. Collecting used batteries via the 450 or so collection points currently provided by the public waste management authorities will also make a decisive contribution towards keeping the consumer's costs low.

The cost regulation envisaged in paragraphs (1) and (2) makes allowance for the fact that the collection services provided by the public waste disposal authorities are already covered by waste charges, and in future, the authorities will be relieved of these tasks (their disposal obligations will expire) and the associated high costs.

Article 9 is based on Article 24, paragraph (2), nos. 1 and 4 of the Closed Substance

Cycle and Waste Management Act <KrW-/AbfG>. This regulation implements Article 4, paragraph (1) and Article 7, paragraph (1) of the EC Battery Directive.

Article 10

The manufacturers' joint return system must be subject to regular success monitoring. In this respect, paragraph (1) envisages corresponding reporting obligations on the part of the manufacturers to the supreme Land authority responsible for waste management or another authority appointed by it.

The data thereby compiled will create transparency, which is also desirable in view of the effects of the joint return system on competition.

According to paragraph (1), sentence 2, manufacturers with their own return system shall also be subject to the same reporting obligations. Paragraph (2) obligates such manufacturers to notify the responsible authority of the fact that they have opted out of the joint system or are operating their own system.

Within the context of their voluntary measures, manufacturers shall also make their reports accessible to the Federal Government, which for its part may evaluate the measures implemented in the year under review within the context of existing discussions with the Länder and leading local government associations.

Article 10 implements Article 4, paragraph (1) and Article 7, paragraph (1) of the EC Battery Directive. At the same time, the system of success monitoring envisaged in paragraph (1) may also produce the findings required in order to set up "programmes" as outlined in Article 6 of the EC Battery Directive.

Article 10 is based on Article 24, paragraph (1), no. 4 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 11

Paragraph (1) lists those batteries for which labelling is compulsory. This regulation implements Article 4, paragraph (2) in conjunction with Annex I of the EC Battery Directive and Commission Directive 93/86/EEC of 4 October 1993 on adapting to technical progress Council Directive 91/157/EEC on Batteries and Accumulators Containing Certain Dangerous Substances.

Paragraph (2) is particularly intended to facilitate the continued usage of the existing recycling symbol ISO-7000 reg. no. 1135 (three arrows), in addition to the labelling prescribed by the Directive.

Article 11 is based on Article 23, no. 4 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 12

The continuing inadequate coverage, in some cases, of used batteries containing harmful substances is primarily attributable to the fact that the trade has been reticent in implementing its obligations from the voluntary commitment of 9 September 1988. Batteries were and still are only accepted for return if explicitly requested by the customer. Even today, customers do not generally receive information at the point of sale regarding the return facilities voluntarily created by the battery industry. The information boards and notices developed by the battery industry for retailers are rarely displayed at the point of sale.

The obligation to display a notice board prescribed by Article 12 is therefore intended to inform consumers and reinforce their willingness to return used batteries. The regulation is based on Article 8, paragraph (1) of the Ordinance on Waste Oils of 27 October 1987 (Federal Law Gazette I, page 2335), which obligates distributors of internal combustion motor oils and gear oils to erect appropriate notice boards at the point of sale.

Article 12 implements Article 7 of the EC Battery Directive, which stipulates that member states shall ensure the effective collection of batteries containing harmful

substances.

Article 12 is based on Article 23, no. 6 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 13

This regulation implements Article 3 of the EC Battery Directive. In the sense of paragraph (1), no. 1, extreme environmental conditions refer e.g. to temperatures of below 0°C or above 50°C, or to vibrations. Admittedly, batteries falling under the scope of no. 1 must be specifically manufactured for such applications. It is insufficient merely to use "regular" batteries under the conditions stated.

In accordance with Article 3, paragraph (1), sentence 2 of the EC Battery Directive, paragraph (1), sentence 2 exempts alkali manganese button cells or batteries comprised thereof from the prohibition pursuant to sentence 1, since it is technically impossible, at present, to reduce the mercury levels of such batteries to below 0.025% and 0.05% respectively. On the other hand, these batteries are needed for certain applications, e.g. as reference cells.

Paragraph (2) implements Article 5 of the EC Battery Directive. "Effortless" removal shall apply if it can be achieved with simple tools normally present in every household, such as screwdrivers. Otherwise, paragraph (2) stipulates that batteries may only be installed in appliances in such a way as to permit effortless removal at the end of their useful life.

Paragraph (3) permits an exemption from the prohibition in paragraph (1), subject to the proviso that the Federal Army (Bundeswehr) uses certain batteries whose harmful substance content exceeds the permissible levels. In this respect, the Federal Army merely functions as a user of the batteries; after use, they are subsequently returned to the manufacturer's sphere of responsibility. The EC Battery Directive does not contain any exceptions for the armed forces. However, in a letter dated 19 May 1994 - XI/00949 - the EC Commission declared its consent to the ruling contained in paragraph (6).

Article 13 is based on Article 23, nos. 1 and 2 and Article 57 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 14

Article 14 addresses the exceptions cited in Article 13, paragraph (2), sentence 2 for the appliance categories listed in Annex 2. The information obligation specified in Article 14 is intended to ensure the return of appliances with permanently installed batteries containing harmful substances.

Article 14 is based on Article 23, no. 4 and Article 24 of the Closed Substance Cycle and Waste Management Act < KrW-/AbfG>.

Article 15

Article 15 is intended to extend the provisions regarding the return and recovery of batteries containing harmful substances to "other batteries".

Today, "other batteries" already account for almost half of all batteries returned to the trade or the public waste disposal authorities. This is indicative of the fact that end users often make no distinction between batteries containing harmful substances and other batteries. In order to attain the objective of the EC Battery Directive (the highest possible return rates for all batteries containing harmful substances), in future, all batteries are to be accepted by distributors and manufacturers for return. The previous, differentiated treatment of the two types of batteries has been partially responsible for the fact that most batteries containing harmful substances are still disposed of with domestic refuse, solely as a result of the aforementioned consumer behaviour.

Manufacturers and distributors have declared their willingness to provide these disposal measures voluntarily in future. However, this type of voluntary commitment also needs to be anchored in the form of an Ordinance, firstly in order to place all

competitors "in the same boat", and secondly in order to safeguard the joint measures on offer.

The proposed extension to "other batteries" is necessary, both for reasons of legal clarity, and in order to obtain significantly better success rates with the return of used batteries. At the appropriate time, the Federal Government will examine the extent to which the voluntary measures offered to date by the manufacturers and the trade have since taken effect and may possibly render Article 15 unnecessary. This could be considered if the voluntary commitment by manufacturers and the trade covering all batteries were to be exempted by the EC Commission.

Article 15 is based on Article 24, paragraphs (1) and (2) and Article 12, paragraph (1), no. 1 of the Closed Substance Cycle and Waste Management Act <KrW-/AbfG>.

Article 16

Article 16 serves the purposes of clarification only. The appointment of third parties does not have an exemplifying effect with regard to the obligations contained in the Ordinance.

Article 17

This provision envisages a fine for violations of the requirements and prohibitions of the Ordinance.

Article 18

Article 18 regulates the entry into force of the Ordinance.

III. The annexes

Annex 1

Annex specifies the manner in which the batteries containing harmful substances defined in Article 2, paragraph (1), no. 2 are to be labelled. It describes in greater detail the symbols and dimensions, as well as the manner in which these are to be attached.

Annex 1 implements Article 4, paragraph (2) of the EC Battery Directive and Commission Directive 93/86/EEC of 4 October 1993 on adapting to technical progress Council Directive 91/157/EEC on Batteries and Accumulators Containing Certain Dangerous Substances.

Annex 2

Annex 2 describes the appliance categories specified in Annex II of the EC Battery Directive which, in accordance with Article 13, paragraph (2), need not be designed in such a way as to permit effortless removal of the battery by the end user. This primarily concerns appliances where the batteries must only be removed by qualified experts, for either functional or safety reasons.

The appliance groups specified in number 1 must be data memories for data processing and automated office equipment which are soldered, welded etc. into the appliance and which are used in an industrial context. Accordingly, batteries from privately used PCs do not belong to this group; nor do the permanently installed batteries in radios or televisions which serve to back up the memory contents in the event of a mains failure (unless these are used industrially).

The group outlined in number 2 comprises, in particular, the medical and scientific sector. Accordingly, batteries used solely to supply power to measurement devices (scale illumination), for example, do not fall under the scope of this group. On the other hand, if the battery is (also) required to generate a reference voltage (e.g. exposure meter), the appliance will fall under point 2.

The group outlined under number 3 covers those appliances not listed under

number 1 or 2 whose batteries should nevertheless only be removed by qualified staff. These include e.g. appliances which could pose a danger for the user in conjunction with higher-capacity capacitors if the battery were to be removed incorrectly.

Number 4 considers new applications in the automobile sector which may make a significant contribution to road safety but which require a permanent, secure connection to the battery and which may only be removed by qualified experts for functional or safety reasons.