University of Glasgow

Safety & Environmental Protection Services Guidance Note

Waste Batteries - key issues related to collection and disposal.

The University procures and disposes of significant numbers of batteries each year and may also have outlets through which it sells portable batteries. This guidance relates to the management of waste batteries in the University. As the University does not generally *produce* (i.e. manufacture) batteries, no reference has been made to producer obligations other than as they impact on end users.

Several pieces of legislation regulate the management of waste batteries in Scotland. Of particular relevance to the circumstances of the HFE sector are the

Waste Batteries & Accumulators Regulations 2009 that regulate Compliance Schemes, the organisations that assist battery producers to meet their obligations.

Waste Batteries (Scotland) Regulations 2009 these transpose parts of the relevant EU Directive, including storage requirements, into Scottish law.

Environmental Protection (Duty of Care) Regulations 1991 which impose obligations to ensure that your waste is managed in a way to avoid harm to the environment.

Special Waste Regulations 1996 that define special waste and describe the provisions for compliant management.

What types of batteries are regulated by the legislation?

The legislation regulates the following types of rechargeable and single use batteries:

- **Automotive** – usually unsealed lead acid type
- **Industrial** – those used for industrial use such as emergency power supply, some alarm systems or those used to propel electric vehicles
- **Portable** – generally all other types of battery but typically within the sector these will be sealed batteries and include AA, AAA, C & D types

Which batteries are Special waste?

Batteries containing nickel cadmium (Ni-Cd) and mercury (Hg) and also lead acid batteries are special waste as a result of the hazardous properties of the chemicals that they contain.

Lithium ion batteries (L-ion) are dangerous for the purposes of the Carriage of Dangerous Goods Regulations due to the risk of fire as a consequence of the lithium reacting with water or other materials or in the event of an electrical short, but are not considered to be special (hazardous) waste in terms of the European Waste Catalogue.

In cases where a mixed load of portable batteries is to be disposed or where the types of portable batteries in the waste are unknown then it is necessary to treat the entire consignment of waste as special waste.

Further information on the legislative requirements related to dealing with special waste is available on SEPS web site.

What are the particular issues with batteries containing Lithium?

Lithium-ion batteries (L-ion) are dangerous, but are not classified as special waste. In this case the nature of the hazard is the risk of fire as a consequence of the lithium reacting with water or other materials or in the event of an electrical short.

What constitutes good practice for storing batteries?

All battery types

- Ensure you discharge your duty of care for waste
- Store in a secure, cool, well ventilated, dry storage area
- Protect against being damaged, crushed or punctured.
- Tape terminals to prevent short circuiting
- Store batteries separately from other hazardous materials
- Segregate special and non-special waste batteries but note the specific provisions for lithium-ion batteries (see below)
- Segregate automotive, industrial and portable batteries as each have different take back/return systems
- Do not store in areas that are fire escape routes

Lithium-ion batteries

In view of their properties, the Department of Transport has issued Authorisation 214 for the carriage of up to 333kg of lithium-ion batteries. In brief, lithium- ion batteries must be mixed with other portable batteries (**i.e. NOT segregated**) and kept tightly packed in a one-use plastic liner placed within a plastic or metal container. Although these requirements only refer to carriage (transport), it would be reasonable to also adopt them as good practice for the collection and storage of this type of battery.

Do I need to register with SEPA if I have a collection point for batteries that is available for use only by staff of my organisation?

No registration or other notification is required for storage of an institution's own waste. However any storage must comply with the provisions of the Waste Management Licensing Regulations 1994 Schedule 3 Paragraph 41 that impose a 12 month time limit and restrict the volume of waste.

Do I need to register with SEPA if I have a collection point that is available for use by staff, students and the public?

No registration or other notification is required for the storage of this waste. However any storage must comply with the provisions of the Waste Batteries (Scotland) Regulations 2009 that transpose the requirements of the relevant EU Directive to store on an impermeable surface and within a suitable weatherproof covering or suitable container.

If a campus shop sells batteries does it have to offer a take back facility?

If any single outlet sells more than 32kg of portable batteries in a year then it must offer a free of charge take back facility. You are required to register this take back facility with SEPA. The

conditions applied to this can be found in Paragraph 17 of Schedule 3 of the Waste Management Licensing Regulations 1994 and registration can be made using the form at http://www.sepa.org.uk/waste/waste_regulation/application_forms/exempt_activities.aspx. The batteries collected must be disposed through a battery compliance scheme that will offer the uplift and disposal free of charge. If you sell less than 32 kg per annum you may still collect waste portable batteries and dispose of them through a compliance scheme, however compliance schemes are not obliged to remove these free of charge. Further information for distributors of batteries is available at http://www.defra.gov.uk/environment/waste/producer/batteries/documents/recycling-batteries.pdf

Do I need to be a licensed waste carrier to move/transport batteries between sites owned by my organisation?

At present there is no requirement to be registered as a waste carrier if you are carrying your own waste (other than construction and/or demolition waste). It is likely, however, that this will change in the future. Carrying of special waste to a site owned by another person (for example a waste disposal company) requires that you purchase a special waste consignment note from SEPA and follow a range of requirements, such as pre-notification of movement, associated with the disposal of special waste.

Is there a legal requirement for the producer or the supplier of any type of battery to collect it from me free of charge?

Portable batteries that have been used by the University can be returned to the seller (known legally as the distributor) free of charge. In many cases this is operationally difficult

There is no obligation on our battery suppliers to take back batteries that have been used by those other than the institution (e.g. students). However waste batteries *could* be transported to a battery compliance scheme where they would be accepted free of charge. These schemes undertake the collection and disposal/recycling of batteries on behalf of producers. Transporting a load of this type of waste would require that the carrier is a registered waste carrier (as it is transporting waste that is not it's own waste) and the waste must be consigned as special waste (see above for further information) as the types of battery in the load will be unknown.

Although not legally obliged to do so, it would seem that some battery compliance schemes are prepared to offer a free uplift and disposal service in these circumstances and this is a route that might be fruitfully investigated.

Producers of industrial batteries have an obligation to take these back from the end users such as the University (but no obligation to collect them). They must not make a charge for this and it must be done within a reasonable time scale.

Producers of automotive batteries must collect waste automotive batteries from *final holders* of the batteries. This *is not the end user* and the end user must fund and arrange the transfer to a final holder (such as a suitably licensed scrap-yard, a local authority or a garage that accepts automotive batteries). In selecting a final holder you must discharge your duty of care and ensure that they may legally accept this type of waste.

What records must be kept if I collect and dispose of batteries?

The waste producer must keep records of disposal for all consignments of waste batteries that are removed from the University.

Portable batteries

In the case of mixed loads or loads containing only batteries that are special waste (such as Ni-Cd and Hg containing batteries a *special waste consignment note* should be retained for at least three years.
For loads of batteries that are not special waste (such as alkaline batteries) a *controlled waste transfer note* should be retained for a minimum of two years.

Industrial batteries

In the case of any industrial batteries that are special waste a *special waste consignment note* should be retained for at least three years. For those that are not special waste a *controlled waste transfer note* should be retained for a minimum of two years.

Automotive batteries

The majority of automotive batteries are lead acid type and so are special waste. As a result a *special waste consignment note* should be retained for at least three years.