

A Legislative Guide to **Waste Management- Batteries**

Universities and Colleges Climate Change Commitment for Scotland (UCCCfS)

Climate Change Guidance Series

Waste Batteries in Universities and Colleges in Scotland

This document was produced with the Assistance of the Scottish Environmental Protection Agency (SEPA) and Dr Ann Galbraith of the University of Glasgow.



Background

Batteries are becoming an increasingly common power source for a wide range of appliances for both domestic and institutional appliance use. They are a ubiquitous part of our daily lives.

Current battery technology depends on toxic metals and corrosive chemicals to produce electronic current from a small, portable package. Recycling diminishes the environmental harms of battery disposal, but may create other environmental issues in the process (increased transportation costs and more energy intensive methods to reprocess the batteries).

This is an important issue for the further and higher education (FHE) sector, as every college and university in Scotland procures, uses and disposes of batteries. Many universities and colleges now have outlets through which they sell portable batteries. This focused legislative guidance relates to the management of waste batteries in the FHE sector in Scotland.

Legislation

There are two main types of batteries:

- ✓ **Primary batteries** which are designed for single usage and disposal; and
- ✓ **Secondary batteries** which are designed to be recharged and reused on multiple occasions.

This guidance covers the legislative aspects that relate to the collection and disposal for each of the above. This guidance also relates to the management of waste batteries in the HFE sector in Scotland. As the sector does not generally produce (i.e. manufacturer) batteries, no reference has been made to producer obligations.



There are two bodies that are worth noting regarding waste legislation in Scotland – the [Scottish Environmental Protection Agency](#) (SEPA) and [NetRegs](#).

SEPA is Scotland's environmental regulator and NetRegs is a partnership between the UK environmental regulators which provides free environmental guidance including waste and waste related issues.

In Scotland, there are several pieces of legislation that regulate the management of waste batteries in Scotland. Of particular relevance to the circumstances of the FHE sector are the:



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- ✓ [Waste Batteries & Accumulators Regulations 2009](#)
These regulate Compliance Schemes (aimed at those who assist battery producers to meet their obligations);
- ✓ [Waste Batteries \(Scotland\) Regulations 2009](#)
These Regulations transpose parts of the relevant EU Directive, including storage requirements, into Scottish law;
- ✓ [Environmental Protection \(Duty of Care\) Regulations 1991](#)
These Regulations impose obligations to ensure that waste is managed in a way to avoid harm to the environment;
- ✓ [Special Waste Regulations 1996](#)
These Regulations define special waste and describes the provisions for compliant management.

Q. What types of batteries are regulated by legislation in Scotland and what records must be kept if I collect and dispose of these batteries?

Records of disposal must be kept for all consignments of waste batteries that are removed from universities and colleges. This includes all types of batteries both Primary and Secondary that include:

Portable batteries



- ✓ Typically, this battery type will be sealed batteries and will include AA, AAA, C and D variations;
- ✓ For recording purposes, mixed loads or loads containing only batteries that are *special waste* should be retained for at least three years;
- ✓ For batteries that are not special waste (such as alkaline batteries) a *controlled waste transfer note* should be retained for a minimum of two years.

Automotive batteries



- ✓ Typically, this battery type will be an unsealed lead acid unit;
- ✓ As the majority of automotive batteries are lead acid type they are classified as being special waste;
- ✓ For recording purposes a *special waste consignment note* should be retained for at least three years.

Industrial batteries



- ✓ Typically, this battery type are those used for industrial use such as emergency power supply, alarm systems or those found in electrical vehicles;
- ✓ 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.

Q. How do I determine which batteries are Special Waste?

Batteries that are classified as special waste are those containing **nickel cadmium (Ni-Cd)** and **mercury (Hg)**. **Lead acid batteries** are also classified as special waste due to 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, 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 [NetRegs](#).

Q. What are the particular issues relating to 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. This is as a consequence of the lithium reacting with water or other materials or in the event of an electrical short.

Q. What are the particular issues relating to batteries containing Lithium-ion?

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.

Q. What would constitute as good practice for the storage of all battery types?

You are legally responsible for ensuring that waste your business produces or handles is stored, transported, treated, reprocessed and disposed of safely. This is your duty of care. All battery types should be stored in the following fashion:

- ✓ 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;
- ✓ Segregate automotive, industrial and portable batteries as each have different take back/return systems;
- ✓ Do not store in areas that are fire escape routes.

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

No. Registration or other notification is not required for the storage of an institution's own waste. However all 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.



Q. 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 not 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.

Q. 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. All take back facilities **must** be registered with SEPA.

The conditions applied to this can be found in Paragraph 17 of Schedule 3 of the [Waste Management Licensing Regulations 1994](http://www.sepa.org.uk/waste/waste_regulation/application_forms/empty_activities.aspx) and the necessary registration can be made on the SEPA website at http://www.sepa.org.uk/waste/waste_regulation/application_forms/empty_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 compliance scheme, however compliance schemes are not obliged to remove these free of charge.

Further information for distributors of batteries is available and can be found at the following website at <http://www.defra.gov.uk/environment/waste/producer/batteries/documents/recycling-batteries.pdf>

Q. Do I need to be a licensed waste carrier to 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 that this will change in the near future.

The 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.

Q. Is there a legal requirement for the producer or supplier of batteries to collect their used units free of charge?

Portable batteries that have been used by an institution can be returned to the seller (known legally as the distributor) free of charge. However, in practice this may be operationally difficult to apply.

There is currently no obligation on battery suppliers to take back batteries that have been used by those other than the institution (e.g. students). However institutions *could* transport these to a battery compliance scheme where they would be accepted free of charge. These schemes tend to undertake the collection and disposal/recycling of batteries on behalf of producers.



However, if batteries were to be disposed of in this manner, then the institution would be required to be registered as a waste carrier as:

- ✓ It is transporting waste that is not its own waste;
- ✓ The types of battery in the load will be unknown.

Although not legally obliged to do so, some battery compliance schemes are prepared to offer a free uplift and disposal service in these circumstances and this is a route that should be investigated by institutions.

Producers of industrial batteries have an obligation to take back used batteries from the end users 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 the *final holders* of the batteries. This is *not the end user* and the institution 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.

Relevant Compliance, Regulation and Legislation

Carriage of Dangerous Goods Regulations

Environmental Protection (Duty of Care) Regulations 1991

Special Waste Regulations 1996

Waste Batteries & Accumulators Regulations 2009

Waste Batteries (Scotland) Regulations 2009

Waste Management Licensing Regulations 1994



Dedicated UCCCfS Resource Tools

UCCCfS Resource Map – Waste Management www.eauc.org.uk/scotland_resource_map1

Recommended Sources of Further Information

Environmental Association for Universities and Colleges (EAUC) www.eauc.org.uk

NetRegs www.netregs.gov.uk

Scottish Environmental Protection Agency (SEPA) www.sepa.org.uk

The Scottish Government www.scotland.gov.uk

Zero waste Scotland www.zerowastescotland.org.uk

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Please note that all information contained within this guidance is correct at the time publication in **October 2010**



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