



Waste Electrical and Electronic Equipment (WEEE)

Guidance on the Management of Waste Ionisation Chamber Smoke Detectors (ICSDs)

This document is for guidance only. It does not purport to be and should not be considered a legal interpretation of the legislation referred to herein. Producers are advised to refer to the relevant legislation for comprehensive information on requirements.

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1. Introduction

Ionisation Chamber Smoke Detectors (ICSDs) are in scope of the European Union (Waste Electrical and Electronic Equipment) Regulations 2014 (SI No 149 of 2014), the WEEE Regulations. If the ICSDs contain batteries, then they are also in scope of the European Union (Batteries and Accumulators) Regulations 2014 (S.I. No. 283 of 2014), the Batteries Regulations.

The objective of the WEEE and Batteries regulations is to ensure safe management of waste electrical and electronic equipment (WEEE) and waste batteries as they can contain hazardous substances. The regulations ensure that these wastes are taken out of the municipal and commercial waste disposal streams and are managed in an environmentally sound manner while at the same time maximising their recovery/recycling potential.

Any company supplying ICSDs onto the Irish market for the first time is a 'producer'. This guidance document summarises the legal obligations that apply to producers of ICSDs under the WEEE and Batteries Regulations.

2. Purpose of this Guidance

The purpose of this guidance document is to provide information to relevant persons involved in the production, importation, recycling and environmentally sound management of waste ICSDs, which are classified as WEEE. This guidance is particularly important due to the radioactive sources and batteries used in these devices.

The guidance is aimed at the following groups:

- Producers, importers, distributors and retailers of ICSDs. These are defined in Section 4.
- End-users of ICSDs, i.e. private households and non-household end users.
- WEEE compliance schemes and their approved waste management contractors.
- Waste collection permit holders and waste licence/facility permit holders handling WEEE.
- Operators and managers of civic amenity sites.
- EPA and local authority enforcement inspectors.

3. The WEEE and Batteries Regulations

The WEEE and Batteries Regulations set up systems for the environmentally sound management of WEEE and waste batteries to ensure their safe recycling so that the environment is protected from harmful substances and that valuable resources are recovered and reused as part of a circular economy. The regulations place significant obligations on **Producers** (i.e. manufacturers, importers) of electronic equipment (EEE) and batteries respectively (including portable, automotive and industrial batteries as well as batteries incorporated into appliances) and on the **Distributors** of those products once they are in the country.

A '**Producer**' is any person or organisation that is carrying out any one, or all, of the following:

- Importing EEE and/or Batteries into Ireland.
- Manufacturing and selling EEE and/or Batteries under their own brand or if EEE and/or Batteries are designed or manufactured on their behalf and placed on the market under their own name.
- Reselling other suppliers' products under your own brand.
- Selling EEE via distance communication to consumers and businesses in Ireland where the company is based outside Ireland.
- Selling EEE via distance communication to consumers and businesses in other EU Member States where the company is based in Ireland.

A '**Distributor**' is any person or organisation that is providing EEE and/or Batteries on a professional basis to an end user.

Separate guidance on the legal obligations that apply to producers and distributors under the WEEE and Batteries Regulations is available on the EPA website.

What is EEE and what is WEEE?

- **EEE** is Electrical and Electronic Equipment.

Categories of EEE are listed in Schedule 3 of the WEEE Regulations, while an indicative list of EEE is provided in Schedule 4. Information on EEE categories and examples of EEE in each category are provided on the website of the Producer Register Ltd (the national producer registration body).

- **WEEE** is EEE that has become waste and is known as Waste Electrical and Electronic Equipment or WEEE.

In general, WEEE and any included batteries must not be disposed of in general refuse or mixed general waste streams. In addition, ICSDs contain radioactive sources and must therefore be managed appropriately, when they reach end-of-life. Products containing radioactive sources, including ICSDs, are also controlled by relevant legislation on ionising radiation.

4. Ionisation Chamber Smoke Detectors

ICSDs use an ionisation chamber and a source of ionising radiation to detect smoke particles. They contain a low activity americium-241 source (typically less than 37 kBq) and can be battery-operated or mains operated with a battery backup. These products are included in the scope of the WEEE and Batteries Regulations.

The options available to householders and commercial or business end-users for the management of waste ICSDs are outlined below.

Management of Waste ICSDs

Due to the radioactive source contained in ICSDs, they should remain intact at all times and no attempt should be made to dismantle waste ICSDs or remove any components from them.

Householders can bring back waste ICSDs free of charge to a retailer (i.e. distributor as defined above) when they are purchasing a new one, on a one-for-one purchase basis, or alternatively, they can bring them to a local civic amenity site. Additionally, retailers can deposit waste ICSDs, accepted back from customers as WEEE, at their local civic amenity site, or can arrange for their collection by its WEEE compliance scheme. A compliance scheme¹ manages the collection, treatment and recycling of WEEE and batteries from authorised collection points (e.g. retail outlets, civic amenity sites) on behalf of its members.

A retailer must maintain records for 2 years containing information on the quantities of WEEE taken back, stored and collected from their premises.

Non-household (business end-users) WEEE is also known as B2B WEEE. There are specific rules for management of B2B WEEE by the producers of the ICSDs.

1. For ICSDs placed on the market prior to the 13th August 2005, when they become waste (known as historic B2B WEEE), the producer is only obliged to take back the historic WEEE when the user is purchasing new ICSDs from them (irrespective of brand). However, if the user is discarding the historic WEEE (i.e. the old ICSDs) and not replacing it, the responsibility for ensuring the environmentally sound management of the historic WEEE remains with the user.
2. For ICSDs placed on the market after the 13th August 2005, the producer must either (i) take back the ICSDs from the business end users and manage the WEEE themselves without the obligation on the user to purchase new ones or (ii) make an alternative financing arrangement with the end-users for the environmentally sound management of the waste ICSDs.

Note: For equipment sold post 13/8/05, the producer must take back the waste ICSDs even if the user is not buying new equipment from them.

As mentioned above, the ICSD producer can opt to make an alternative financing arrangement with the end user to manage the WEEE (i.e. use of Regulation 19 of the WEEE Regulations rather than Regulation 18). In this case, certain obligations will transfer to the end user including those under

¹ There are two compliance schemes in Ireland ERP Ireland (www.erp-recycling.org) and WEEE Ireland (www.weeeireland.ie)

Regulations 22 (treatment and shipment) and 23 (recovery targets) of the WEEE Regulations. The producer is required to notify the end user of these obligations.

Whatever arrangements are in place to manage the WEEE, appropriately authorised waste collectors and treatment operators must be used to transport and treat the WEEE.

Civic Amenity Sites (Recycling Centres)

All civic amenity sites accept WEEE and waste batteries from householders. Segregated storage² for waste ICSDs should be provided at civic amenity sites and other relevant authorised waste management facilities. Appropriate segregated storage for ICSDs can be a covered drum (preferably steel), or other appropriate covered receptacle, accurately labelled, and stored under suitable, secure roofing/cover.

Suitable arrangements should also be in place to prevent the loss or theft of, or unauthorised access to, or unauthorised removal of, the ICSDs from their assigned location. Clear signage should be displayed in the area where the ICSD storage receptacle is located indicating “Ionisation Chamber Smoke Detectors (ICSDs)”.

Adherence to the above guidance will demonstrate compliance with the 8th and 9th Schedules of the WEEE Regulations and will be considered good practice from a radiological protection perspective. Waste ICSDs collected at civic amenity sites should be returned to the original supplier, according to the branding indicated on the units or transferred to a suitable treatment facility. Such transfers should be documented, and relevant records retained.

WEEE Waste Management Facilities

All waste facilities must be appropriately authorised either by a licence issued by the EPA or a waste facility permit, or certificate of registration issued by the relevant local authority. Waste facilities accepting ICSDs might also require a separate EPA licence for storing equipment containing a source of ionising radiation.

Final Recovery or Disposal of ICSDs

Due to the radioactive source contained in ICSDs, waste ICSDs should be managed differently to other WEEE. At present there is no national central storage facility for radioactive waste. Waste ICSDs, which are branded with an existing manufacturer, can be transported in the licensee’s own vehicles or by an authorised carrier or transport service provider. Transport must be undertaken in compliance with the relevant legislation for transport by land or sea. For waste ICSDs being shipped out of Ireland by sea, pre-authorisation for the carriage of these units is also required by the sea carrier and the relevant port’s Harbour Master’s office.

Licensing by EPA

At present, companies in Ireland who supply ICSDs and/or hold more than 500 units in stock are required to be licensed by the EPA. Distribution of ICSDs is restricted to those units that do not exceed 37 kBq of americium-241 per unit. As outlined, such companies can be ‘producers’ (e.g. importers) or ‘distributors’ (e.g. retailers), or both, under the WEEE Regulations and must therefore fulfil the relevant legal obligations that apply to them under those Regulations.

An EPA licence is also required where more than 500 waste ICSDs is stored such as at a waste treatment facility or a civic amenity site. Waste recovery operators, producers or distributors accepting back waste ICSDs in accordance with the WEEE Regulations will also require authorisation

² Refer to Schedule 9 of the European Union (Waste Electrical and Electronic Equipment) Regulations 2014 (SI No. 149 of 2014) as amended. Segregated storage of waste ICSDs is considered best practice.

from the EPA. The requirement to take-back waste ICSDs at the end of their useful life is normally included in the conditions of an EPA licence.

Companies licensed by the EPA who are returning ICSDs directly to suppliers in other EU Member States must ensure that the relevant shipment documents are completed and stamped as appropriate by the Competent Authority for radiation protection in that country. This also applies to any waste ICSDs imported into Ireland. Companies acquiring/returning ICSDs from/to countries outside the European Union must seek authorisation from the EPA by means of an import/export licence. The EPA regulates, restricts or prohibits, the custody, handling, holding, storage, use, manufacture, importation, distribution, transportation, exportation or other disposal of ionisation chamber smoke detectors.