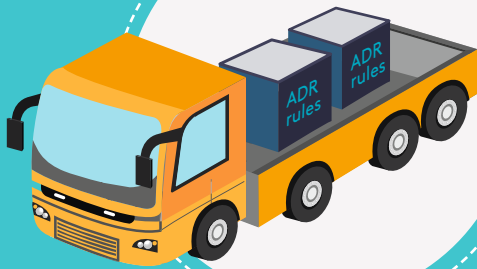


# EERA

## TECHNICAL GUIDANCE DOCUMENT

- > SAFE COLLECTION AND TRANSPORT OF ELECTRONIC EQUIPMENT WITH LITHIUM BATTERIES
- > UNDERSTANDING ADR RULES MADE EASY



High-energy batteries – lithium batteries – are a suspected cause of fires during the transport, storage and recycling of waste electrical and electronic equipment which threaten the success of the European WEEE Directive.

80% per cent of waste electrical and electronic recycling companies report serious fires and incidents. Most fires broke out during the unloading and storage of waste electrical and

electronic devices emphasising the need for safer practice in collection and transport.

EU-wide legal requirements (ADR Rules) for the collection and transport of lithium batteries, or devices that contain such batteries, exist but are not easily understood and implemented.

EERA explains how to be compliant.



## ADR RULES FOR THE CARRIAGE OF WEEE CONTAINING LITHIUM CELLS AND BATTERIES

Lithium cells and batteries are classified as dangerous goods. Their carriage and transport are regulated under rules from ADR. ADR is the “**Accord européen relatif au transport international des marchandises par route**” in connection with “UN Recommendations on the Transport of Dangerous Goods”. **By EU ordinance these rules are law in the EU.**

Because WEEE is often equipped with lithium batteries, ADR rules are affecting the collection and transport of electric and electronic equipment.

From 2019, Special Provisions for the carriage of WEEE containing lithium batteries were adapted (**SP 670**). **SP 670** covers the collection and carriage of WEEE (Equipment) from private households. This includes equipment from private households and equipment which comes from commercial, industrial, institutional and other sources which, because of its nature and quantity, is similar to that from private households. Equipment likely to be used by both private users and users other than private households (“dual use”) shall be considered equipment from private households.

### ABOUT EERA:

The European Electronics Recyclers Association (EERA) is a non-profit organization that promotes the interest of recycling companies who are treating waste from electrical and electronic equipment (WEEE) in Europe. EERA members include the largest electronics recyclers in Europe who together process over 2 million tons of WEEE annually.



# ADR RULES FOR THE CARRIAGE OF WEEE

ADR RULES	EXEMPT FROM ADR RESTRICTIONS
SCOPE	ALL TYPES OF WEEE
TYPES OF EQUIPMENT	<ul style="list-style-type: none"> <li>• Equipment from private households without lithium cells and batteries</li> <li>• Equipment where lithium (Li) batteries have been <b>removed</b></li> <li>• Where they are not the main source of power</li> <li>• Li-cells and batteries are <b>not damaged</b> and &lt; 0,5 kg</li> </ul>
EXAMPLES	Large and small household appliances with button cells to support memories, PC with AC power supply but batteries only to support data, lap-tops or other equipment with the main battery pack removed; equipment where the batteries have been removed by the owner or the collection center.
PROVISIONS FOR EXEMPTION FROM ADR RULES	<ul style="list-style-type: none"> <li>• Lithium cells and batteries are <b>not</b> the main power source for the operation of the equipment</li> <li>• The equipment does <b>not</b> contain any <b>other</b> lithium cell or battery used as the <b>main power source</b></li> <li>• Exempt lithium cells and batteries are <b>protected</b> by the equipment itself</li> <li>• No loose lithium batteries</li> </ul>
LABELLING	None
PERMITTED CARRIAGE	Bulk possible for small appliances, tight-fit loading for large appliances or other means of securing loads
ADDITIONAL REQUIREMENTS FROM ADR	None

# CONTAINING LITHIUM CELLS AND BATTERIES

ADR RESTRICTIONS APPLY (UN 3091, UN 3481; SP 670; P 909)

LARGE EQUIPMENT

ALL OTHER TYPES OF WEEE

Equipment from private households that contain lithium cells and batteries (as the main source of power); lithium cells and batteries are not damaged; batteries < 0,5 kg

Large household appliances with lithium cells or batteries as main power supply (not likely in existence today)

All WEEE containing lithium cells or batteries as the main source of power for operations such as small appliances, household and kitchen equipment, tools, toys, IT-equipment etc.; (appliances usually containing lithium cells and batteries but which have been removed prior to transport do **not** fall under this heading)

Large equipment may be carried on pallets or loosely packed

- If the equipment affords protection to the lithium cells and batteries
- No risk of loss of whole equipment, Li-cells or batteries

Equipment shall be packed according to packaging instruction P 909, **or** must be packed in strong outer packaging, such as specially designed collection receptacles which meet the following requirements:

- the packagings shall be constructed of suitable material and be of adequate strength and design
- the packagings shall prevent any loss of contents during carriage (lids, strong inner liners, covers)
- measures shall be taken to minimize damage to the equipment when filling and handling the packaging (for example rubber mats)
- Packaging not to exceed **400 kg net weight or 3 m<sup>3</sup>**

Packages must be labelled "Lithium Batteries for Disposal" or "Lithium Batteries for Recycling". If equipment is carried unpackaged or on pallets the labelling may be affixed to the external surface of the vehicles or containers.

Packaging must be labelled "**Lithium Batteries for Disposal**" or "**Lithium Batteries for Recycling**".

Large containers or trucks, tight-fit loading or other means of securing loads

**No bulk transport**; packaging such as boxes, cases, barrels not exceeding 400 kg net weight or 3 m<sup>3</sup> per package; <333 kg of Lithium cells per vehicle

A **quality assurance system** must be in place to ensure that transport units (vehicles) do not exceed **333 kg of lithium cells or batteries**. The total quantity of lithium cells and batteries in the equipment from private households may be assessed by means of a **statistical method** included in the quality assurance system. A copy of the quality assurance records shall be made available to competent authorities upon request (it is advised to keep records of sample loads)