

SAFE AND SUSTAINBLE USED LEAD ACID BATTERY (ULAB) LOGISTICS

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PURPOSE OF THIS GUIDE SAFE AND SUSTAINBLE USED LEAD ACID BATTERY (ULAB) LOGISTICS

This Guideline is for collectors and aggregators of used lead acid battery (ULAB) to assist them undertake safe packing and transporting practices when sending ULAB to recyclers.

In this Guideline, the Association for the Battery Recycling Industry (ABRI) seeks to provide an overview of the typical ULAB packaging, transport, and work safety practices.

Each user of this Guideline must undertake their own risk assessment and due diligence, to identify the circumstances specific to their business activities and consequently the requirements that apply. The business providing transport and/or the ULAB recycler will also be well placed to advise on individual packaging and transport requirements.

This Guideline is focused on land transport. The information in this Guideline is valid at October 2023. However, regulations can change at any time, and you should check the relevant legislation and supporting instruments.

This Guide replaces the ABRI Packaging and Safe Transport of Used Lead Acid Battery – Recycling Batteries Guideline – 1 November 2020.

2 LEAD ACID BATTTERIES HAZARDOUS, DANGEROUS AND CONTROLLED WASTE

Lead acid batteries, new or used, are designated as both hazardous and dangerous goods. ULAB are also designated as controlled waste as they contain lead.

Hazardous goods contain chemicals, such as lead, that can pose health or physical danger hazards to humans. This has implications for work health and safety obligations. They are classified as corrosive substances, GHS08, under the Globally Harmonised System of chemical labelling, due to the link with chronic health hazards; this includes aspiratory and respiratory hazards, carcinogenicity, mutagenicity and reproductive toxicity.

Dangerous goods are capable of posing a risk to people, property and the environment when transported. Lead acid batteries fall into class 8, corrosive substances, and must be clearly labelled as Class 8 when packing and transporting.

The National Waste Classification system, identifies waste products containing lead, including ULAB, as D220 classification (lead or lead compounds). This classification is important for waste tracking and will be required when seeking approvals to transport interstate and often intrastate. In Western Australia, they will be tracked as D221.

These classifications mean that there are a range of rules that apply to safe handling and transport of ULAB to protect human health, property and the environment. The table below summarises the classifications and symbols.

Classification	Hazardous good Work health and safety labelling and information	Dangerous good Transport labelling	Waste tracking
Symbol		CORROSIVE	D220 – Australia- wide except WA D221 – Western Australia

MAPPING THE RULES GOVERNING PACKAGING, STORAGE, TRANSPORT AND WORK SAFETY

The rules or regulatory framework for the packing, storing and transport of ULAB can appear complex and confusing. Rules may overlap as protecting human health will also have consequential environmental benefits and vice versa. They can be broadly be understood as:

3.1 WORK HEALTH AND SAFETY

This is important throughout the logistics process to protect workers and anyone who may come into contact with the ULAB, and the environment from exposure to the lead and acid in the battery. It is discussed further in this Guideline. Safe Work Australia provides information and tools to assist business including:

Identifying, assessing and controlling hazards

How to manage work health and safety risks

Work health and safety duties related to hazardous chemicals

Managing chemical hazards using the hierarchy of controls

Labelling requirements for hazardous chemicals in the workplace

3.2 TRANSPORT – SAFETY AND MANAGEMENT TOOLS FOR DANGEROUS GOODS THE AUSTRALIAN DANGEROUS GOODS CODE ('THE CODE')

The purpose of the Code is to provide consistent technical requirements for the land transport (road and rail) of dangerous goods across Australia. It focuses on:

- Packaging
- Consignment procedures such as labelling, marking and placarding. One way to think of this is clear information provision for anyone coming into contact with the ULAB packaging such as handling or responding to an emergency incident
- Stowage/restraint to support safe transport
- Documentation to track hazardous waste movements
- Safety equipment for vehicles

Each state and territory implements the Code and associated updates to their dangerous goods transport regulations separately. Businesses must comply with their state/ territory-specific act and regulations and the ADG Code.

List of the relevant legislation for each state and territory

Contact details on operational matters in each state and territory

3.3 TRANSPORT – VEHICLES OVER 4.5 TONNES EVERYONE IS RESPONSIBLE FOR SAFE TRANSPORT

If the ULAB is being transported in a vehicle over 4.5 tonnes gross mass, then the Heavy Vehicle National Law will apply. The objectives of this law include public safety and encouraging and promoting safe business practies. It covers requirements around fatigue management for drivers, vehicle dimensions and loading, and vehicle standards as well as the chain of responsibility.

All parties in the chain of responsibility have an obligation to ensure safe practices and protect public safety. This includes a packer, scheduler, dispatcher (consignor), receivor (consignee), loader and unloader under the law.

This guide will not discuss the vehicle operation and standards details of the Heavy Vehicle National Law as most ULAB transport is undertaken by a third party. The purpose of inserting this information is to raise awareness of the law and your obligations as a packer, scheduler, dispatcher (consignor), receivor (consignee), loader and unloader under the law.

Importantly, it is to remind you to manage risks and hazards associated with your transport activities. In short:

- Identify the risks involved in your transport activities
- Assess those risks
- Eliminate those risks where reasonably practicable, or if they can't be eliminated, minimise them
- Do not pack lithium batteries in ULAB consignments

The Heavy Vehicle National Law applies in all states and territories, except Western Australia and the Northern Territory. As with the Australian Dangerous Goods Code, each state and territory implements the Law spearately and may apply modifications. List of the relevant legislation

In Western Australia, the *Roads Track (Vehicles) Act 2012* applies and importantly is broadly similar as shown in this WA Government comparison table.

The Northern Territory does not have a specific chain of responsibility requirement. However, as all ULAB will be sent interstate for processing then you can be held liable in jurisdictions to which the load is being sent even though you have no direct role in driving or operating the vehicle. This effectively means that you should manage the risks and hazards associated with transport as required under the Heavy Vehicle National Law.

3.4 COLLECTION & STORAGE - PLANNING APPROVALS AND ENVIRONMENTAL LICENSING

Requirements for storage and waste management facilities, such as a used battery collection business, warehouse and/or a consolidation site, will be informed by planning and environmental legislation in each state or territory. This may require a business undertaking ULAB collection and storage to apply for an environmental licence or permission. For small amounts of ULAB, there may be exemptions from licensing so long as safe practices are applied. Any business and activity based at a business' premises may also need to comply with relevant state, territory and/or local government business activity and planning approvals.

FIRST STEPS EARLY PREPARATION AND SAFETY

Packing and transport requirements will vary depending on the ULAB recycler receiving the batteries, potential changes in government rules, volume and type of ULAB (e.g. automotive, industrial, forklifts). To support smooth and safe logistics, ABRI suggests that prior to transporting ULAB, you consider undertake the following tasks:

Talk to the company receiving the batteries AND your transport company to check:

- Any specific packaging requirements
- Advice on latest rules and best practice
- Required approvals to transport
- They have the required environmental licenses or permissions to receive the ULAB

Check the rules yourself

Battery preparation

■ Separate your ULAB into batteries of the same size for packing and remove all battery cables and connections. This will help you estimate volumes for transport and confirm that you are using the right pallet type for the weight of the. Lead acid batteries are generally labelled with the chemical symbol for lead (Pb) and the crossed-out wheelie bin. When estimating the weight, one option is to assume 18kg per typical car or small truck battery. This means approximately 80 to 90 individual batteries per hardwood pallet or 60 individual batteries per softwood pallet. This is a guide and is discussed in detail in section 6.2.2 and 6.2.4.



- Check vent caps are firmly in place
- Check damaged or cracked batteries are free of leaking electrolyte. Cracked or leaking lead acid batteries should be stored in acid resistent, leak proof containers and seek advice from your waste transporter and receiver (e.g. recycler) as to what special provisions and notifications may be required.
- Remove all non-ULAB batteries, such as lithium and nickel cadmium batteries. These increase risks for transporters, recyclers and other parties if packed with ULAB. If these batteries are mixed in with the ULAB, you will likely be in breach of your chain of responsibility oblgations under the National Heavy Vehicle Law especially if you have not met mixed battery packing, labelling and placarding requirements.

4.1 SAFETY IS CRITICAL WHEN HANDLING ULAB

Throughout the logistics process it is important that safe work handling practice are applied.



5 CHAIN OF RESPONSIBILITY: EVERYONE HAS A ROLE TO PLAY IN SAFE TRANSPORT

For anyone connected with transport of a load in a vehicle over 4.5 tonnes, then the Heavy Vehicle National Law applies a chain of responsibility. This applies to all aspects of the transport activity, including ULAB sorting, packing, wrapping and strapping.

The chain of responsibility:

- Makes parties other than drivers responsible for the safety of heavy vehicles on the road. This means that if you use road transport, even if you don't operate or manage the service, you share responsibility for ensuring, so far as is reasonably practicable, the safety of transport activities.
- Prohibits a party in the chain from transferring (contracting out) their duty to someone else.
- Applies to any activity that a business does that has something to do with the use of a heavy vehicle on a road and would be part of a businesses transport activities. This includes "business practices" and decisions, regarding the use of a heavy vehicle on a road including planning, scheduling and engaging third parties. This is known as the primary duty and it consists of two parts:
 - > a duty to eliminate public risks and to the extent that it is not reasonably practicable to eliminate them, to minimise them.
 - > a duty to ensure that conduct does not directly or indirectly cause:
 - > Drivers to breach the law
 - > Drivers to speed
 - > Any other person to breach the Heavy Vehicle National Law

This means anyone, including the business executive, consignor, packer and loader, who has control in the transport chain can be held legally accountable if, by their actions, inactions or decisions, they cause or contribute to a breach of the road laws.

If a business has anything picked up or delivered by a heavy vehicle then they have a responsibility and what they do will determine what party they are in the chain. For instance, if a business:

- packs goods then that business is a Packer
- schedules times slots for the loading/unloading of a heavy vehicle then that business is a Scheduler
- loads heavy vehicles then they are a Loader
- unloads heavy vehicles then they are a Unloader
- organises for the pick-up of goods by a heavy vehicle then they are a Consignor
- organises the delivery of goods by a heavy vehicle then they are a Consignee
- loads or unloads five or more heavy vehicles on their premises each day then they are a Loading Manager

A business can be more than one type of party.

Executives of all companies in the ULAB transport chain must exercise due diligence to ensure their business complies with its primary duty. This means:

- getting and maintaining knowledge about carrying out transport activities safely;
- understanding the nature of the business' transport activities, including the hazards and risks of those activities; and
- ensuring the business has, and uses, the resources needed to eliminate or minimise the hazards and risks created by its transport activities and that information about hazards, risks and incidents is received, considered and responded to quickly.

To help you, the Heavy Vehicle National Regulator has published a Master Code of Practice. This is a a practical guidance document for anyone who has obligations under the law including for training or understanding the chain of responsibility requirements. The law provides that a Registered Code of Practice has an evidence function when a court is asked to determine whether a party or an executive has discharged their Chain of Responsibility obligation. It can also be used as a tool to check compliance and inform the issuing of an improvement or prohibition notice.

A Registered Waste and Recycling Industry Code of Practice is under development. The code will provide additional information about risks and controls that are specific to the waste industry and supports the Master Code. Check the National Heavy Vehicle Regulator website Industry Codes of Practice section for the latest advice on the status of this code. It is possible that this Code could be finalised in 2024.

These Codes apply to all parties including the contractor of services, packer of goods and consignor of goods, such as a company storing or managing used batteries and arranging transport even if a third party manages the transport service. Therefore it is important for the party, including the executive, using a heavy vehicle transport service to move ULAB to understand their transport obligations and risks and how to manage these.

6 PRACTICAL STEPS FOR PACKING AND TRANSPORTING ULAB

Packaging is about safe transport for everyone involved in moving the ULAB, the community and the environment. It focuses on securing loads to prevent movement, preventing leaking and minimising fire risks from short circuits.

This section sets out information on how to pack batteries on pallets, package and wrap the pallets, and lable the load.

6.1 READ RELEVEANT SECTIONS OF THE AUSTRALIAN DANGEROUS GOODS CODE

Understand the general requirements that apply to all transport packaging about:

- Quality (section 4.1.1.1 of the Code)
- Design requirements so that the dangerous goods do not weaken the packaging or react with the packaging, and permeate the packaging under normal transport conditions (4.1.1.2)
- Dangerous goods cannot be packed together (e.g. lithium batteries) if they react dangerously with one another (section 4.1.1.6)
- Other safety controls (section 4.1.3)

Read the specific instructions that apply to packing ULAB - Packing Instruction P801.

You must be compliant with all the requirements. Read and familiarise yourself with relevant sections of the Code before proceeding any further.

For the transport of automotive lead acid batteries in Australia, there is a special provision (AU08) to help determine weight limits for placarding requirements. The acid volume may be used when calculating the aggregate quantity of dangerous goods in the load. If the acid volume is not known, a nominal figure of 25% of the gross weight of the battery may be used.

6.2 PACKAGING FOR TRANSPORT

The Code provides for two broad types of packaging:

- Stainless steel and plastic bins
- Wooden crates and pallets

These come with their own specific requirements under Packing Instruction P801.

Always check with your ULAB waste processor/recycler as to what type of packaging they will accept. There may be additional costs for accepting some types of packaging as it may not be reusable and incur costs for disposal.

6.2.1 STAINLESS STEEL AND PLASTIC BINS

In addition to the general requirements around quality, the bins must be:

- Resistant to the electrolyte that was contained in the batteries
- Not filled to above the height of the sides
- Free of residues of electrolyte contained in the batteries
- Not leak electrolyte under normal transport conditions
- Prepared to ensure that filled bins cannot lose their content

In addition, measures must be take to prevent short circuits, for example batteries are discharged or terminals individually protected.

6.2.2 PALLETS QUALITY AND SIZE

Pallets must be in good condition and of heavy-duty construction to support ULABs which are heavy. Damaged pallets, such as with broken or missing timbers, are not acceptable.

Pallet size and maximum weight will be determined by the pallet manufacturer. Check with your pallet company as to the maximum dimensions and weight.

6.2.3 STACKING A PALLET | A CHECKLIST

Stacking ULABs has a big impact on the safety for battery handlers during transit, preventing movement and upacking at the processor.

- ✓ Battery sizes and shapes should be similar stack batteries of a similar size and shape. Automotive batteries should be stacked separately to industrial and forklift batteries to assist in securing the ULAB in transit and assist handling by processors.
- ✓ Upright batteries should be upright to prevent acid spills and avoid the possibility of short circuit.
- ✓ Vent caps firmly in place ULABs must have all vent caps firmly in place prior to strapping and wrapping, as missing or loose vent caps are the major cause of acid spills during transport.
- ✓ Separator between layers To prevent short circuit and to distribute weight place a sheet of non-conductive material (separators) between each layer of batteries. Use heavy duty cardboard separators and check with your processor for alternatives. Battery terminals must not support the weight of other batteries. Separators must be of a depth greater than the height of the terminal in order to ensure that terminals are not weight bearing.
- ✓ Maximum weight and dimension This is determined by the pallet that you are using. Hardwood pallets will have a higher weight limit than plastic pallets. Check with your pallet company the ratings for the pallets you are using.
- ✓ Maximum number of layers two or three? This will only apply to automotive batteries and will depend on two factors:
 - > the company receiving the ULAB, not all companies can receive ULAB stacked three high; and
 - > the pallet you are using. Only pallets, such as hardwood, which have a high weight threshold can handle ULAB stacked three batteries high.

✓ Multiple layers - outer rows should have similar height batteries - Ensure ULABs stacked on outer rows of each layer are of similar height. This forms a solid base for upper layers and secures batteries in the centre of the pallet.

6.2.4 INDICATIVE GUIDANCE ON NUMBER OF BATTERIES ON A PALLET

When calculating the number or weight of batteries to load onto a pallet, consider whether the pallet is hardwood or softwood, and the overall condition of the pallet, whether all struts are intact and the wood is free of cracks and splits. Generally speaking, a good quality hardwood pallet in good condition, will be capable of packing up to a maximum three layers high with an advisory maximum weight of around 1,500kg gross.

Where possible pallets should be weighed.

Battery types and weights vary, if you do not have access to weighing equipment, consider a basic calculation of 18kg per typical car/small truck battery – this means approximately 80 to 90 individual batteries per hardwood pallet and no more than three layers high.

A softwood pallet regardless of condition is not designed for this weight and should have up to two layers of aroud 60 batteries.

At all times the load must be stable and rigid, with consideration to heavier/larger units being packed on the bottom layers. This is intended as a guide, only. Before packing, always speak to your battery recycler about their individual requirements regarding maximum number of layers and preferred pallet load limits.

6.2.5 WRAP THE PALLET

All ULAB pallets must be either stretch wrapped or shrink wrapped in plastic to the full height of the pallet stack.

Other factors to consider:

- Must allow ventilation wrapping must leave space for air to escape (i.e. not completely enclose the ULAB) to avoid the potential for gas build-up.
- The industry standard and preference is for clear plastic wrap as it facilitates identification of the ULAB by the processor and by authorities in the event of an incident or accident. It also allows for partial checking to ensure lithium batteries are not incorrectly packed with ULAB. Some ULAB processors/recyclers will only accept clear plastic wrap.
- If using clear plastic wrap, it is recommended that the pallet is wrapped more than once to minimise movement of the batteries during transport. The number of times a pallet should be wrapped will depend on the quality of the wrap. Wrapping needs to be secure and support non-movement of ULAB during transport.
- Plastic wrapping alone is not acceptable. Pallets must also be strapped see next section.

6.2.6 STRAP THE PALLET

Effective strapping is also essential for safe transport and handling.

- Strapping must be high strength polypropylene, polyester or nylon plastic.
- Preferred strapping is 19mm wide with a combined break strength of 1500 kg.
- Strapping must be tight enough to prevent battery movement in transit
- Friction welding is preferred; otherwise non-plastic clips.
- Steel strapping is not acceptable, due to the potential risk of fire from short-circuits
- Automotive and industrial batteries must have one horizontal strap around each layer of batteries.
- Forklift and flooded standby power cells must have at least 3 horizontal straps around the load.
- In addition to the above, all pallet loads must have at least 2 cross straps tying the load to the pallet.
- Vertical strapping alone is not acceptable.

What does good packing look like?



Note the Horizontal strap to each layer of ULAB, two vertical straps secure the ULAB to the pallet, clear plastic stretch wrap, and pallets in good condition



6.2.7 LABEL YOUR PARCELS FOR STORAGE

Labelling for WHS safety in the workplace while waiting for transport.

Prior to transport, packages of batteries are required to be labelled on the front and rear in accordinace with the Global Harmonised System which is used for workplace safety as shown below.

This label is not to be used for transport.



6.2.8 LABELLING OF PACKAGES FOR TRANSPORT

During transport, packages must be labelled with a "Class 8" sticker to comply with Dangerous Goods Regulations in accordance with the following:

- The sticker must have minimum size of 100 x 100mm with minimum lettering size of 7mm
- All pallets or bulk containers must be labelled with the proper shipping name, including:
 - > Batteries Wet filled with Acid
 - > UN number: e.g. UN2794
 - > Name and address in Australia of the consigner.
 - > Ensure label is placed on at least two opposing sides.
- When storing pallets, ensure that the label is visible to incoming trucks and emergency services.



BATTERIES, WET FILLED WITH ACID UN 2794 USED LEAD ACID BATTERIES

Sender Details
Name of Supplier
Address of Supplier
Suburb, State & Postcode

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APPROVALS TO TRANSPORT

7.1 APPROVAL TO TRANSPORT ULAB

ULAB, as a controlled waste, will require approvals and/or tracking to transport intrastate and interstate. Arrangements vary between states so check with your transport company and ULAB receiver.

There are two types of approvals:

- A consignment authorisation (CA), which is issued by the EPA in the same state as the facility receiving the waste. This is usually for a fixed period of time, for example a period of not more than a year. This ensures that the ULAB are going to a facility licenced to receive them. A consignment authorisation must specify the consignor (company sending the ULAB), the facility receiving the ULAB, the waste code (e.g. D220), and the period of validity. This must occur before any physical waste movement can occur.
- Once the CA has been issued, each individual waste movement will require a transport certificate. The transport certificate must accompany every load.

Some states offer online waste tracking (see section 7.2). This enables approved facilities to create consignment authorisations and track waste online.

7.2 WHERE TO FIND INFORMATION FOR EACH STATE AND TERRITORY ON WASTE TRACKING

Information on waste tracking for each state and territory can be found at:

- Australian Capital Territory
- New South Wales
- Northern Territory
- Queensland
- South Australia
- Tasmania
- Victoria
- Western Australia

8

VEHICLE REQUIREMENTS

8.1 LICENSING, PERMITTING OR PERMISSIONING OF VEHICLE

For vehicles, two types of licensing may be required:

- A waste transport licence
- A dangerous goods vehicle licence

There may also be specific licensing requirements for drivers.

Licenses can also be called registrations, permits, or permissions. Jurisdictions do not use the same terms. Licences or their equivalent must be applied for and approved by the relevant regulator in the state / territory. The below table provides the name of the relevant each state and territory and a link to the regulator's information on licensing.

	Vehicle and driver licence/permit	Controlled waste permits
Australian Capital Territory	WorkSafe ACT Dangerous goods vehicle licensing Dangerous goods drivers license	ACT Government City Services Waste Transporters Registration
New South Wales	NSW EPA Dangerous goods vehicle licensing Dangerous goods drivers licence	NSW EPA Environment protection licence - waste transporters
Northern Territory	NT WorkSafe Dangerous goods vehicle and drivers licensing	NT EPA Listed waste environment protection licence
Queensland	Department of Transport and Main Roads Dangerous goods vehicle licensing Dangerous goods driver licence	Department of Environment and Science Environmentally Relevant Activity (ERA) standard – regulated waste transport
South Australia	SafeWork SA Dangerous goods vehicle and drivers licensing	EPA South Australia Environmental licensing – waste transporter
Tasmania	WorkSafe Tasmania Dangerous goods vehicle licensing Dangerous goods driver licenses	EPA Tasmania Registration of controlled waste transporters
Victoria	WorkSafe Victoria Dangerous goods vehicle licensing Dangerous goods drivers licence	EPA Victoria Reportable Priority Waste Transporter - A10b registration
Western Australia	Department of Mines, Industry, Regulation and Safety Dangerous goods vehicle and driver licensing	Department of Water and Environment Controlled waste carrier licence

8.2 VEHICLE PLACARDING REQUIREMENTS - DANGEROUS GOODS

The Dangerous Goods Corrosive 8 diamond is required to be displayed on the vehicle when transporting a thousand litres of dangerous goods under this category. This is the same symbol as is applied to each wrapped ULAB pallet or container.

In the case of lead acid batteries, you can calculate the amount of acid in the load using Special Provision AU08 which provides a nominal 25% content in automotive new or used lead acid batteries. A thousand litres of electrolyte is equivalent to approxminately 4,000kg of ULAB.



8.3 PARKING FOR SMALL LOADS (UP TO 5TONNES OF ULAB)

When transporting up to 4 tonne of ULAB, the ADG (13.1.3.2.2.5) specifies requirements needed to enable a vehicle to park in a public place depending on the type of vehicle as shown in the table below.

Enclosed vehicle	The load area containing the batteries must be locked
Tray style vehihcle	The load must be covered or the vehicle is supervised*
Managing of manifest	Transport documentation for load states the number of batteries in the load and must be adjusted after each delivery so that it accurately states the number of batteries in the load at all times

^{*} The term supervised is not defined or explained. In considering, what level of supervision is required to protect public safety, property and the environment, undertake a risk assessment that considers preventing people and the environment coming into contact with hazardous substances. This could consider the purpose of the supervision, the participants involved and the context or place in which it is occurring.

8.4 PPE AND OTHER REQUIREMENTS FOR TRANSPORT

Before transport, undertake a pre-start check for all items in the table below.

DESCRIPTION	Non placard load	Placard load
Emergency Information Folder	Documentation can be kept in a prominent place in cabin	✓
Battery Manifest	✓	✓
Corrosive 8 Placards (Front and Rear of the Vehicle)		✓
3 x double-sided Reflective Portable Warning Triangles	✓	✓
FIRE EXTINGUISHER 1 x 10B Dry Powder. In the truck Cabin or at the front of any trailer transporting a placard load		√
FIRE EXTINGUISHER 1 x 60B or 2 x 30B in the load area		✓
Eye-Wash Kit – Suitable for Acid Splashes. Must be at least 250ml capacity, filled and ready for use.	✓	✓
Self-Contained Breathing Apparatus that provides a minimum of 15 minutes air-supply and in the cabin. Must be in date and maintained.		✓
First-Aid Kit (traveller) in the cabin, in date, and maintained & Tagged.	✓	✓
Boots – Acid Resistant (Worn by the Driver)	✓	✓
Spill kit including: shovel, drain seal and collecting containerff	✓	✓
Gloves - Acid Resistant	√	✓
Torch (In good working condition)	√	✓
Overalls – Acid Resistant	✓	✓
Goggles – gas tight or full face shield as appropriate	✓	✓

For more information refer chaper 12 - safety equipement in the Australian Dangerous Goods Code

9 ULAB RECYCLERS

The Association for Battery Recycling Industry has a search tool for battery recycling and processing by battery chemistry and state/territory for you to search for ABRI members who can assist with ULAB processing and recycling. Commerical ULAB collection and recycling services must hold the relevant environmental permits. Check with your collector and recycler which permits they hold to ensure that they are approved facilities to receive ULAB.

Disclaimer: The information provided in this document is general in nature and provided for educational purposes only. Organisations must do their own research to understand their legal obligations and to ensure that they are compliant with all relevant laws and regulations. ABRI does not accept responsibility for any loss or damage occasioned by any person acting or refraining from action as a result of reliance on this document