HARMONISING TRANSPORT AND ENVIRONMENTAL REGULATION OF HAZARDOUS WASTE: ISSUES FOR CONSULTATION

SUBMISSION TO GHD BY AUSTRALIAN BATTERY RECYCLING INITIATIVE

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ABRI

CONTENTS

1 INTRODUCTION AND BACKGROUND

Australian Battery Recycling Initiative (ABRI) is a not-for-profit association established in 2008 to promote effective stewardship of all end-of-life batteries.

One of ABRI's key objectives is to promote environmental responsibility in the battery recovery chain. This includes compliance with environmental, hazardous waste, dangerous goods (DG) and workplace health and safety laws. Companies face a number of challenges in seeking to comply with these laws in the various jurisdictions. In particular:

- It is difficult for businesses involved in the storage or transport of used lead acid batteries (ULAB) to understand their regulatory obligations. in some cases regulatory requirements are unclear and departmental staff may be reluctant to give advice
- Regulations applying to batteries are different in each jurisdiction, including the relevant waste category, licensing and tracking requirements and waste codes.

For these reasons compliance is a time-consuming and therefore expensive process.

ABRI supports the objectives of this study, i.e.:

- to identify and recommend opportunities to achieve greater harmonisation of hazardous waste and transport regulation at national and jurisdictional levels
- to identify opportunities within hazardous waste regulation to achieve greater regulatory harmonisation at both of these levels.

This submission outlines some policy issues for consideration by the consultants in two of the identified areas:

- inconsistencies between hazardous waste regulations in jurisdictions
- learning from different regulatory frameworks.

2 HAZARDOUS WASTE REGULATION

2.1 INCONSISTENCIES BETWEEN JURISDICTIONS ON TRACKING OF USED LEAD ACID BATTERIES

ABRI advocates a simpler regulatory framework for the transport of used lead acid batteries (ULAB).

In particular, we believe that the current requirements for interstate and intrastate tracking of ULAB impose an unnecessary cost on battery collectors. We propose a more efficient system that we believe would meet government requirements.

Intrastate tracking

Intrastate tracking of used lead acid batteries (ULAB) is currently required in Victoria, Queensland and South Australia but not in NSW, Western Australia, Tasmania and the

two territories. We do not believe that intrastate tracking is necessary, for reasons outlined below.

Correction:
Please note that Appendix B in the GHD report should be amended to add ULAB to the list of hazardous wastes not tracked within WA. The Department of Environmental Regulation's list of controlled waste codes states that for D221 (used lead acid batteries), 'No controlled waste tracking form currently required'[1].

Interstate tracking

ULAB are covered by the National Environment Protection Measure (NEPM) for the Movement of Controlled Wastes, which means that the interstate transport of used batteries requires (for each load of batteries):

- a consignment authorisation from the environmental protection agency in the destination state or territory
- a waste transport certificate from the agency in the originating state or territory and this must accompany the ULAB load in transit.

The purpose of tracking waste is apparently to support compliance monitoring and to collect data for government purposes. These are addressed separately below.

1. **Compliance monitoring**
   Tracking enables state and territory government regulators to monitor the movement of hazardous wastes and to ensure that they are delivered to an appropriately licensed facility. It manages the risk that wastes that are costly to process may be dumped or managed in an environmentally irresponsible or unsafe manner (tyres are a good example).

   Dumping is generally not a concern for ULAB, because they have a positive commercial value. As a result ULAB are unlikely to be dumped after collection.

   Some ULAB are exported illegally, i.e. without a permit from the Department of Environment, although this is likely to be a very small percentage of the total. Individuals involved in illegal export are unlikely to be licensed and will generally not comply with other requirements including tracking.

   Additionally there is no requirement to complete NEPM paperwork for export, so whilst the NEPM tracks interstate movements it does not track international movements.

   Tracking does not appear to be necessary for compliance purposes.

2. **Data collection**

   Tracking enables the federal government to report to the United Nations on hazardous waste generation; something that Australia is obliged to do as a signatory to the Basel Convention. This is a valid objective but we believe that a

[1] (www.der.wa.gov.au/images/documents/our-work/controlled-waste/Controlled_Waste_Category_list.pdf)

much more efficient data collection system could be established to meet this requirement (see below).

The Department of Environment also requires data on ULAB generation and recycling to support its evaluation of applications to export ULAB under the Hazardous Waste Act. However, NEPM data is inadequate for this purpose as ULAB are included under the generic 'lead' category.

Data collection needs could be addressed through a simpler system that targeted the companies that receive and recycle used batteries rather than collectors – at this time there are only four in Australia (Enirgi Metals Group, Hydromet, V-Resource and Lex Enviro). Each of these sites is required to hold state based EPA licences.

If not already the case, it would be a simple matter to include a requirements in their licence conditions that they must track used batteries, i.e. source of product (from which state and aggregator) and a load mass reconciliation.

The quantity of used lead acid batteries exported under permits granted by the Department of the Environment (currently only one, Dodd & Dodd Group), is already available from OECD tracking forms submitted to the Department with each shipment. As part of their permit conditions, exporters could be required to track and report similar data to that outlined above for local processors.

We therefore believe that the NEPM and relevant regulations at a state and territory level should be amended to exempt used lead acid batteries from the tracking requirement.

ABRI's recommendations:

- Remove the requirement for tracking interstate and intrastate movements of ULAB
- The Department of the Environment to implement a simpler system to collect data on ULAB recycling. This could involve an annual survey of the four companies that receive and recycle batteries in Australia and companies that export batteries under permit.
- State EPAs may need to amend site-based licensing conditions to require tracking.

2.2 INCONSISTENCIES BETWEEN WASTE CODES FOR USED BATTERIES

It is currently very difficult to determine which waste code should be applied to used batteries. For example, ULAB could be classified as either 'acid' or 'lead; lead compounds'.

There are also inconsistencies between codes in different jurisdictions. In most jurisdictions ULAB would be classified as D220 (lead and lead compounds) but WA has introduced a specific code for ULAB (D221).

To simplify the tracking process for industry and government, we propose common waste codes in all jurisdictions and specific codes for used batteries.

The Department of Environmental Regulation in WA has already introduced codes for three battery types:

- D151 – used nickel cadmium batteries
- D211 – used nickel metal hydride batteries
- D221 – used lead acid batteries.

These could be duplicated in the NEPM and other state jurisdictions. Additional codes could be introduced for other batteries, e.g. alkaline batteries (C101), mixed dry cell batteries (C102) and lithium/lithium-ion batteries (E121). These are shown in content (marked in green) in **Appendix 1.**

ABRI's recommendation:

- The NEPM working group approve new controlled waste codes for used batteries:
  - C101 – used alkaline batteries
  - C102 – mixed used dry cell batteries
  - D151 – used nickel cadmium batteries
  - D211 – used nickel metal hydride batteries
  - D221 – used lead acid batteries
  - E121 – used lithium and lithium-ion batteries.

3 LEARNING FROM DIFFERENT REGULATORY FRAMEWORKS

ABRI acknowledges that environmental and safety risks associated with used batteries need to be carefully managed. However, the regulatory regime needs to be designed so that it encourages rather than discourages recycling. It should be simple, transparent (easily understood), and consistent across all jurisdictions.

There is a model for this in the United States, where the federal Hazardous Waste Regulations under the Resource Conservation and Recovery Act (RCCA) provide a streamlined approach to the regulation of certain types of waste, including:

- used lead acid batteries (40 CFR S Part 266, Subpart G)
- 'universal wastes' including batteries, pesticides, mercury-containing equipment and bulbs (lamps) (40 CFR S Part 273).

The US EPA notes that the universal waste regulations have a number of objectives:

- to facilitate 'environmentally sound collection and proper recycling and treatment'
- to 'ease the regulatory burden on retail stores and others that wish to collect these wastes and encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal waste landfills…'
- to 'ensure that the wastes subject to this system will go to appropriate treatment or recycling facilities pursuant to the full hazardous waste regulatory controls'.

The regulations applying to 'spent lead acid batteries being reclaimed' (40 CFR S Part 266, Subpart G) identify seven different activities in the ULAB recovery chain and specify which regulations will apply. The following is an extract:

> 'Are spent lead-acid batteries exempt from hazardous waste management requirements? If you generate, collect, transport, store, or regenerate lead-acid batteries for reclamation purposes, you may be exempt from certain hazardous waste management requirements. Use the following table to determine which requirements apply to you. Alternatively, you may choose to manage your spent lead-acid batteries under the "Universal Waste" rule in 40 CFR part 273.'

If your batteries . . .	And if you . . .	Then you . . .	And you . . .
(1) Will be reclaimed through regeneration (such as by electrolyte replacement)		are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 268, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA	are subject to 40 CFR parts 261 and §262.11 of this chapter.
(2) Will be reclaimed other than through regeneration	generate, collect, and/or transport these batteries	are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA	are subject to 40 CFR parts 261 and §262.11, and applicable provisions under part 268.
(3) Will be reclaimed other than through regeneration	store these batteries but you aren't the reclaimer	are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA	are subject to 40 CFR parts 261, §262.11, and applicable provisions under part 268.

4 MORE INFORMATION

We would be happy to provide more information if required. Please contact:

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5 APPENDICES

5.1 APPENDIX 1 – PROPOSED WASTE NEPM CODES

Waste Code	Waste Description
A100	Waste from surface treatment of metal & plastics
A110	Cyanide waste from heat treatment & tempering operations
A130	Cyanides (inorganic)
B100	Acidic solutions or acids in solid form
C100	Basic solutions or bases in solid form
C101	Used alkaline batteries
C102	Mixed used dry cell batteries
D100	Metal carbonyls
D110	Inorganic fluorine compounds excluding calcium fluoride
D120	Mercury; mercury compounds
D130	Arsenic; arsenic compounds
D140	Chromium compounds (hexavalent and trivalent)
D141	Tannery wastes containing chromium
D150	Cadmium; cadmium compounds
D151	Used nickel cadmium batteries
D160	Beryllium; beryllium compounds
D170	Antimony; antimony compounds
D180	Thallium; thallium compounds
D190	Copper compounds
D200	Cobalt compounds
D210	Nickel compounds
D220	Lead; lead compounds
D221	Used lead acid batteries
D230	Zinc compounds
D240	Selenium; selenium compounds
D250	Tellurium; tellurium compounds
D270	Vanadium compounds
D290	Barium compounds (excluding barium sulphate)
D300	Non toxic salts
D310	Boron compounds

D330	Inorganic sulfides
D340	Perchlorates
D350	Chlorates
D360	Phosphorus compounds excluding mineral phosphates
E100	Waste containing peroxides excluding hydrogen peroxide
E120	Explosive waste not subject to other legislation
E121	Used lithium and lithium ion batteries
F100	Waste ink, dye, pigment, paint, lacquer & varnish
F110	Waste resin, latex, plasticiser, glue & adhesive
G100	Ethers
G110	Organic solvents excluding halogenated solvents
G150	Halogenated organic solvents
G160	Waste from production formulation & use of organic solvents
H100	Waste biocides and phytopharmaceuticals
H110	Organic phosphorous compounds
H170	Waste wood-preserving chemicals
J100	Waste mineral oils
J120	Waste oil/hydrocarbons mixtures/emulsions in water
J160	Waste tarry residues
K100	Animal effluent & residues-abattoir, poultry, fish
K110	Grease trap waste
K120	Liquid food waste
K130	Sewage sludge & residues
K140	Tannery waste incl. leather dust/ash/ sludge/flour
K190	Wool scouring wastes
M100	Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) <50 mg per kg
M110	Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) >50 mg per kg
M130	Non-halogenated organics chemicals (non solvent), NOS.
M150	Phenols, phenol compounds including chlorophenols
M160	Organohalogen compounds not elsewhere listed
M170	Polychlorinated dibenzo-furan (any congener)
M180	Polychlorinated dibenzo-p-dioxin (any congener)
M210	Cyanides (organic)
M220	Isocyanate compounds
M230	Triethylamine catalysts for setting foundry sands
M250	Surfactants containing principally organic constituents
M260	Odorous organic chemicals incl. mercaptans & acrylates
N100	Containers & drums containing controlled waste residues
N120	Soils contaminated with a controlled waste

N125	Soils contaminated with a hazardous substance(s)
N130	Soils contaminated with a dangerous goods substance(s)
N140	Fire debris and fire wash waters
N150	Fly ash
N160	Encapsulated, chemically-fixed, solidified, polymer wastes
N190	Filter cake
N205	Industrial waste treatment/disposal residues
N220	Asbestos
N230	Ceramic-based fibres similar to asbestos
R100	Clinical and related wastes
R120	Waste pharmaceuticals, drugs and medicines
R130	Cytotoxic
R140	Waste from prod & prep of pharmaceutical products
R150	Quarantine waste
T120	Photographic chemicals & processing waste
T140	Tyres
T170	Waste chemicals in small quantities, NOS, such as collected household chemicals
T200	Dangerous goods nos
Z130	Inert sludges or slurries
Z140	Non-controlled liquids