



Government of **Western Australia**
Department of **Housing and Works**

OPERATION TRANSPORT PROCEDURES

**DISPOSAL OF CHEMICAL WASTE AT THE
INTRACTABLE WASTE DISPOSAL FACILITY
MT WALTON EAST**

Waste Disposal Operation 2026NRT01

Prepared by

Aurora Environmental

**July 2026
REVISION 2**

This Operation Transport Procedures (OTP) document describes the way chemical wastes are to be packaged and transported for disposal by shallow land burial at the Intractable Waste Disposal Facility (IWDF), Mt Walton East.

The OTP applies to the disposal operation (2026NRT01) planned for August 2026. Transport activities are planned to commence in early August 2026 and are expected to be complete by mid-August 2026. The transport operation will involve the packaging and transport of defective lithium metal batteries (Class 9 dangerous goods of UN 3090), fire-affected batteries, containing a mix of UN 3090 lithium metal batteries, UN 3480 lithium ion batteries, and undetermined reaction products and soil contaminated with these materials, owned by the DWER (Table 1).

Details of the packaging and transport procedure for the waste consignments, including packaging and transport proformas for the different waste types (which include waste safety data sheets, packaging supplier details, a transport route map, transport procedures including emergency response, and emergency response team contact details), as provided by the Department of Local Government, Industry Regulation and Safety (DLGIRS) (and their consultants and contractors) on behalf of the waste owner, are provided in Appendix A to this document.

Table 1
Summary of the chemical waste proposed for disposal at the IWDF
Operation 2026NRT01

Waste Owner	Responsibility for Waste Packaging, Loading, and Transporting to IWDF	Waste Type	Waste Quantity
DWER	Department of Local Government, Industry Regulation and Safety (DLGIRS) and their consultants and contractors	Defective lithium metal batteries UN (3090) and fire-affected batteries containing a mix of UN 3090 lithium metal batteries, UN 3480 lithium ion batteries, and undetermined reaction products and soil contaminated with this material	18 open-topped half-height sea containers of fire affected Li metal batteries, Li ion batteries, undetermined reaction products and contaminated soil, fitted with lids and vents, and 9 full height open-topped sea containers of defective Li metal batteries, fitted with lids and vents. If additional containers of fire affected Li metal batteries, Li ion batteries, undetermined reaction products and contaminated soil waste material require disposal the size of the trench may be varied. This will not alter the risk profile of the disposal operation.

Operations at the IWDF must comply with the Ministerial conditions and commitments applied to the facility (Ministerial Statement 562). Table 2 summarises the compliance of

this OTP with relevant commitments and other requirements, in accordance with the Packaging and Transport (Reporting) Guidelines (Rev. 12) for the IWDF. Supporting documentation is provided in the two Packaging and Transport Proformas (Appendix A).

The OTP should be read in conjunction with the Operation Environmental and Waste Acceptance Procedures (OEWP) document for this operation (Department of Housing and Works, 2026).

REFERENCES

Department of Housing and Works (2026) *Operation Environmental and Waste Acceptance Procedures – Disposal of Chemical Waste at the Intractable Waste Disposal Facility, Mt Walton East – Waste Disposal Operation 2026NRT01*. Prepared by Aurora Environmental for Department of Housing and Works, July 2026.

Table 2
Audit Table - Compliance of Proposed Disposal Operation 2026NRT01 with Relevant Proponent Commitments

NO	TOPIC	Relevant Commitment	SCOPE	TIMING	COMPLIANCE	REFERENCE
TRANSPORT-SPECIFIC (Proponent Commitments)						
1	Performance and Compliance Report	PC 6	Prepare and make publicly available the Performance and Compliance Report (PCR) at the conclusion of each waste disposal operation.	Within 3 months following completion of each disposal specific operation. Advertise within 4 weeks of obtaining approval for PCR.	Future Action.	Refer OEWP.
2	Transport and Packaging	MC 6.1 and PC 11	Ensure that all third-party carriers, in direct control of hazardous and intractable waste which is being transported to the facility have the appropriate permits or licences required under the relevant national and state legislation, regulation and codes of practice for the transportation and management of chemical waste. Ensure that the packaging and transport requirements specified in the Operational Transport Guidelines and Waste Acceptance Guidelines are adhered to through the use of contracts and other controls as necessary.	Prior to the commencement of transportation activities during disposal operation. Prior to the commencement of transportation activities during disposal operation.	Future Action. DHW to obtain verification from DLGIRS for inclusion in the PCR. Future Action. This Operation Transport Procedure document has been produced by the proponent to incorporate all of the information and undertakings of DLGIRS who are responsible for packaging and transport (together with their consultants and contractors) on behalf of the waste owner and will form part of the Performance and Compliance Report.	Refer Appendix A for both (Maddington and Wattleup) Packaging and Transport Proformas with the required information.

APPENDIX A

Waste-Specific Packaging and Transport Proformas

PACKAGING & TRANSPORT PROFORMA
**DETAILS OF THE PACKAGING AND TRANSPORT MANAGEMENT OF WASTE
PROPOSED FOR DISPOSAL AT THE INTRACTABLE WASTE DISPOSAL
FACILITY**

NB: Notes to assist with the completion of the proforma are attached

DHW REFERENCE NUMBER:

1. CLIENT (WASTE OWNER) DETAILS

Client's Name: Department of Water and Environmental Regulation	
Address: Prime House, 8 Davidson Terrace, JOONDALUP WA 6027	
Tel: (08) [REDACTED]	Client Email: [REDACTED]@dwer.wa.gov.au
Client Contact: [REDACTED]	
Tel: (08) [REDACTED]	Contact Email: [REDACTED]@dwer.wa.gov.au

2. PRESENT LOCATION OF WASTE

2.1 Address: 5 Burwash Place, Maddington WA 6109
2.2 Location at Site: Front yard and main warehouse
2.3 Contact Person at address: [REDACTED], [REDACTED]

3. DESCRIPTION OF WASTE

3.1 Type of Waste: Defective lithium metal batteries, Class 9 dangerous goods of UN 3090.
3.2 Physical form of waste: Solid article, dimensions 2010 x 870 x 311 mm, placed inside shipping containers and buried in sand.
3.3 Intractable components of waste: Batteries are defective and may spontaneously ignite. Lithium metal is highly reactive and burns in contact with moisture in air, producing toxic gases (e.g, hydrogen fluoride, phosphine).

4. DANGEROUS GOODS (OR HAZARDOUS/RADIOACTIVE WASTE) CLASSIFICATION

4.1 Technical Name: LITHIUM METAL BATTERIES
4.2 Dangerous Goods Class: Class 9 - Miscellaneous Dangerous Goods
4.3 UN No.: UN 3090
4.4 Packaging Group: None
4.5 Hazchem Code: 4W
4.6 Other Waste Classification (e.g., Hazardous, Controlled, Radioactive): E120
4.7 Safety Data Sheets (SDSs) attached (Attachment A)? Yes ☒ No ☐

5. PACKAGING (CURRENT)

5.1 Packaging Type: 12 open-topped shipping containers fitted with lids and vents.
5.2 Package Dimensions: 6.06 x 2.44 x 2.59 m
5.3 Classification/Grade of material: Carbon steel
5.4 Sealing (e.g., lids, seals, straps, clamps, screws): Fitted with vented lid, strapped down and attached to trailer.
5.5 Safe Working Load (SWL): Unknown, typically > 20 tonne. Suitable for quantity of material packed within.
5.6 Photograph(s) of waste package(s) attached (Attachment B): Yes ☒ No ☐

6. COMPATIBILITY WITH IWDF PACKAGING ACCEPTANCE CRITERIA

6.1 Filled to contain no significant voids: Yes ☒ No ☐
Describe how this is achieved: Batteries are surrounded on all sides by sand inside shipping containers, effectively filling all voids.
6.2 Packaging material compatible with waste: Yes ☒ No ☐
6.3 Free of ruptures: Yes ☒ No ☐

6.4 Free of external contamination:	Yes ☒ No ☐
6.5 Weights within Safe Working Load (SWL) of container:	Yes ☒ No ☐
6.6 Labelled with the waste owner's name and appropriately sized identification number, on opposite sides of the waste package:	Yes ☒ No ☐
6.7 Packaging can be disposed of with the waste:	Yes ☒ No ☐
6.8 Waste & packaging is strong enough to be walked on, if required:	Yes ☒ No ☐
6.9 Packaging can contain all the wastes whatever the orientation of the package:	Yes ☒ No ☐
6.10 The packaging will remain intact and will allow no leakage (or unacceptable exposure) during normal transport and handling operations:	Yes ☒ No ☐
6.11 Supplier documentation (SWL and chemical compatibilities) attached (Attachment C):	Yes ☒ No ☐
6.12 Packaging will be undertaken in accordance with the current version of the ADG Code or Code for the Safe Transport of Radioactive Material: Relevant transport determination attached as part of Appendix G	Yes ☒ No ☐
If no, describe why:	
6.13 Does the current packaging satisfy IWDF packaging requirements? (all "Yes" answers above):	Yes ☒ No ☐
6.14 Verification/Inspection Records attached to confirm that packaging in compliance?	Yes ☒ No ☐

7. PROPOSED RE-PACKAGING (IF REQUIRED)

7.1 If existing packaging of the waste is not compliant (one or more "No" answers above), describe the proposed rectifying actions: N/A
7.2 Advise when packaging is to take place, so that it may be witnessed by DHW representatives: N/A

8. PROPOSED DOUBLE CONTAINMENT FOR TRANSPORT

8.1 Container Type: N/A, see Section 5 for packaging details.

8.2 Container dimensions: N/A, see Section 5 for packaging details.

8.3 Classification/Grade of material: N/A, see Section 5 for packaging details.

8.4 Sealing (e.g., lids, sealant, straps, clamps, screws): N/A, see Section 5 for packaging details.

8.5 If double containment is not proposed, provide reasons why: Double containment is not feasible as the waste is placed directly inside shipping containers, buried in sand. Goods are articles which will not spill and spread like a liquid or divided solid. Containers will have vented lids fitted which are held down with straps to prevent spills during transport and in event of truck rollover.

9. COMPATIBILITY WITH IWDF TRANSPORT (DOUBLE CONTAINMENT) ACCEPTANCE CRITERIA9.1 Secondary (double) containment is proposed for transport Yes ☐ No ☒9.2 Double containment is in accordance with the ADG Code or Code for the Safe Transport of Radioactive Material **N/A** Yes ☐ No ☐

If no, describe why: As described in 8.5.

9.3 Secondary containers are clearly labelled: **N/A** Yes ☐ No ☐9.4 Secondary containers can contain all the wastes, whatever the orientation of the container **N/A** Yes ☐ No ☐9.5 Secondary containers will remain intact and will allow no leakage during normal transport and handling operations **N/A** Yes ☐ No ☐**9.6 Does the secondary containment satisfy IWDF requirements? (all "Yes" answers above)** Yes ☐ No ☒9.7 Verification/Inspection Records attached to confirm that containment complies (Attachment D)? **TBA** Yes ☐ No ☐**10. WASTE QUANTITY (SUBSEQUENT TO ANY RE-PACKAGING)**

10.1 Number of Waste Packages: 13

10.2 Numbering/Identification: Containers to be numbered 1-13 as loaded.	
10.3 Waste Package Weight: 25 to 30 T.	Volume: 38.3 m ³
10.4 Accuracy of weighing devices used: Unknown	
10.5 Waste Package Dimensions: 6.06 x 2.44 x 2.59 m	
10.6 Total Consignment Weight: Up to 390 T.	Volume: 497.86 m ³
10.7 Inventory listing (including waste package numbers, weights, volumes, and contents) attached (Attachment E)? TBA	Yes ☐ No ☐

11. LOADING FOR TRANSPORT

11.1 Date(s) and timing of proposed loading: Saturday 1 August 2026 (TBC)
11.2 Location of loading: 5 Burwash Place, Maddington WA 6109
11.3 Method of loading: Side loader to transfer container onto flatbed trailer

12. TRANSPORT

12.1 Date(s) of proposed transport: Saturday 1 August 2026 (TBC)	
12.2 Type of transport vehicle(s) to be used: A-double with flatbed trailer, traveling in convoy to carry all containers.	
12.3 Number of transport vehicle(s) per delivery: 10 vehicles across 2 convoys	
12.4 Describe Proposed Transport Route: Burwash PI -> Albany Hwy -> Roe Hwy -> Great Eastern Hwy -> Stirling Crescent -> Bushmead Rd -> CTI Yard (316 Bushmead Rd) -> Bushmead Rd -> Stirling Crescent -> Great Eastern Hwy -> Mt Walton Access Rd	
12.5 Transport Route map attached (Attachment F):	Yes ☒ No ☐
12.6 Licensed Transport Contractor in place?	Yes ☒ No ☐
12.7 Transport Contractor's Name: Hazrad Australia Pty Ltd	

Address: 34 Cocos Drive, Bibra Lake WA 6163	
Tel: 08 9418 4200	Email:
12.8 Transport and Emergency Response Procedure details attached (Attachment G)? Yes ☒ No ☐	
12.9 Emergency Response Team Contact details attached (Attachment H)? Yes ☒ No ☐	

13. COMPATIBILITY WITH IWDF TRANSPORT ACCEPTANCE CRITERIA

13.1 Transport will be undertaken in accordance with applicable legislation (e.g., the ADG Code, Controlled Waste Regulations)	Yes ☒ No ☐
If no, describe why (e.g. exemptions):	
13.2 Appropriate transport licences, certificates, or approvals in place?	Yes ☒ No ☐
Describe: Transport will be below placard load, so drivers do not require dangerous goods drivers licences but will be suitably trained. Hazrad holds controlled waste carrier licence T01102.	
13.3 Transport management, hazard controls and emergency response procedures are in place:	Yes ☒ No ☐
13.4 Transport will be undertaken in daylight hours:	Yes ☒ No ☐
If no, describe why:	
13.5 Transport vehicles will travel in convoy:	Yes ☒ No ☐
13.6 At least one vehicle will be fitted with a satellite telephone:	Yes ☒ No ☐
13.7 Transport documentation, including Chain of Custody, Certificate of Identification, verification/inventory records and controlled waste tracking form will be provided upon delivery:	Yes ☒ No ☐
13.7 Does the proposed transport satisfy IWDF requirements? (all "Yes" answers above)	Yes ☒ No ☐

14. OTHER DETAILS

Any additional comments:

15. ATTACHMENTS**Please ensure that the following are attached:**

A. Waste Safety Data Sheets (SDSs)	Yes ☒ No ☐
B. Photographs(s) of waste packages	Yes ☒ No ☐
C. Packaging Supplier details	Yes ☒ No ☐
D. Verification/Inspection Records	Yes ☒ No ☐
E. Inventory Records	Yes ☐ No ☐
F. Transport Route Map	Yes ☒ No ☐
G. Transport Procedures (including emergency response)	Yes ☒ No ☐
H. Emergency Response Team Contact Details	Yes ☒ No ☐

I certify that all sections of the PACKAGING AND TRANSPORT PROFORMA have been completed (unless not applicable). I understand that should any section of the proforma be incomplete (unless not applicable), no further consideration of the waste for disposal at the IWDF can be made by the Department of Housing and Works.

Completed by Authorised Client Representative:	
Name: 	Position: Dangerous Goods Officer
Signature: 	Date: 24/07/2026

Appendix A: Waste Safety Data Sheet

Safety Data

Battery LMP[®] **Pack** **Blue *Solutions***

Blue *Solutions*

Odet – Ergué Gabéric
29556 QUIMPER CEDEX 09
FRANCE

1- IDENTIFICATION

Product

Commercial Name: Battery LMP®
Description: Packs IT2: 27 / 37 kWh
Packs IT3: 42 / 63 kWh
Packs IT2-3: 42 kWh

Supplier:

Name: BLUE SOLUTIONS
Mail : Qualite.client.mobilite@blue-solutions.fr
Adresse: Odet - Ergué-Gabéric
29556 QUIMPER Cedex 9
France
Mobile (Customer service): +33 (0)6 23 75 14 07
Phone (Standard): +33 (0)2 98 66 78 00

2- IDENTIFICATION OF DANGERS

Physical and Chemical Hazard :

The battery is a manufactured product that does not pose any chemical or electrical hazards if its integrity is maintained.
In the event of a short circuit due to a piercing or a violent impact, there is a possibility of self-heat leading to a delayed ignition.

Health Hazards : Not applicable.

3- COMPONENT INFORMATION

Components	CAS Numbers	Proportion (% of mass)	Risk Symbole	Hazard Statement
Metallic Lithium	7439.93.2	< 10	 	H260/ H314/EUH014
Lithium Salt	90076-65-6	< 5	  	H290/ H301/ H311/ H314/H373/H412

4- FIRST AID

The Lithium Metal Polymer Battery is a dry battery that does not present any risk related to chemical exposure.

5- FIRE-FIGHTING MEASURES

Specific case: LMP battery damaged or lost its integrity during transport or handling operations.

1. If a battery is damaged, there is a risk of a short circuit and fire initiation.
Proceed immediately to the quarantine of the battery concerned:
 1. For a minimum of 24 hours
 2. In the open air and under supervision
 3. At 10 m from any building or storage
 4. Packaged in the original packaging
 5. Covered with a tarp to prevent water ingress.
 6. On a horizontal surface or on the BMS side in high point, never the other way around

7. The quarantine can be done in an empty container.
8. Blue Solutions must be contacted to diagnose the battery. Before transporting, we recommend freezing for a minimum of 12 hours before shipping in a refrigerated container (-20°C).

Specific risks in case of fire :

- The LMP battery contains Metallic lithium: Metal fire (class D), risk of exothermic reaction in case of direct contact of lithium metal with water.
- Release of toxic and corrosive fumes (see Chapter 10)
- Energetic fire with projection of incandescent particles and molten metals

An exothermic reaction is the direct contact between a Lithium metal battery and a water retention which is a violent and dangerous chemical reaction.

In special cases, the reaction can be so intense that they can lead to a rapid increase in temperature and an increase in flammable gas.

- Battery potentially charged up to:
 - 432 V for IT2 Pack 27 à 37 kWh
 - 422 V for IT3 Pack 42 kWh and IT2-3 Pack 42 kWh
 - 634 V for IT3 Pack 63 kWh

Fire Extinguishing Method:

In case of a battery fire:

To prevent a spread, it is possible to use water resources in the vicinity of the burning battery.

↳ To protect against the risks of projection, and exothermic reaction and electricity, the following precautions must be taken during the intervention:

- ✓ Cutting off energies
- ✓ In any case, the use of a water extinguisher is prohibited.
- ✓ The intervention with a water hose must be carried out:
 - more than 20 m from the burning battery
 - without direct jet on the battery, to avoid drowning the battery to avoid an exothermic reaction.
 - in the diffused jet position, to prevent the spread of fire.

In case of a fire around the battery:

Considering the electrical risk, the usual means can be used to extinguish the fire, but also to cool the battery.

Specific protective equipment for firefighting:

Wear self-contained breathing equipment and protective clothing to prevent contact with the respiratory tract, skin and eyes.

If incandescent particles come into contact during a fire, remove the particles by washing thoroughly with water. Consult a doctor or specialist.

6- MEASURES TO BE TAKEN IN THE EVENT OF ACCIDENTAL DISPERSAL

1. The battery does not contain any acids or solvents and cannot cause any liquid flow or ATEX.
2. The solids contained inside Lithium Metal Polymer batteries cannot be dispersed into the environment until the physical integrity of the Battery is impaired.
3. If physical integrity is impaired (shock, puncture, etc.), there is an immediate or delayed electrical and/or fire risk depending on the nature of the short circuit. Set up a security perimeter and contact BLUE SOLUTIONS. In case of emergency and in any case as soon as smoke appears, evacuate the area, and call the fire brigade specifying that it is a Lithium Metal Polymer battery.

7- HANDLING, STORAGE AND CONDITIONS OF USE

Handling :

1. Do not crush, puncture, deform.
2. Use the appropriate handling equipment.

3. Do not heat directly or weld on the ends.
4. Do not put on fire.

Packaging / Storage :

1. Keep batteries in their original packaging.
1. For wooden packaging, do not stack more than 4 wooden boxes.
2. For other packaging, do not stack beyond 5 pallets.
3. The outdoor T° range for transport and storage should be between -40 and +85°C. Except for damaged batteries, they must be stored and transported frozen at -20°C.
4. Batteries should be stored in a dedicated 2h00 fire compartment equipped with fire detection and smoke evacuation device. In all cases, do not store combustible liquids in the vicinity.

Usage :

1. Refer to BLUE SOLUTIONS instruction.

8- EXPOSURE CONTROL/PERSONAL PROTECTION

Not applicable for a manufactured product.

9- PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Rectangular steel housing with 2 connectors

Product	Energy	Tension	Dimension	Max Weight
IT2	27 / 37 kWh	432 V max	Length 1420 mm width 1066 mm height 266 mm	330 kg
IT3	42 kWh	422 V max	Length 1414 mm width 870 mm height 311 mm	320 kg
IT3	63 kWh	634 V max	Length 2010 mm width 870 mm height 311 mm	459 kg
IT2-3	42 kWh	422 V max	Length 1431 mm width 910 mm height 271 mm	337 kg

10- STABILITY AND REACTIVITY

Conditions to avoid:

Anyone who disassembles the Lithium Metal Polymer Battery is exposed to electrical hazards.

Decomposition Products:

Under normal conditions of use and up to temperatures of 150°C, the Lithium Metal Polymer battery is stable.

In case of fire:

- Smoke primarily contains CO₂, CO and NO as well as SO₂, HF, H₂, CH₄, C₃H₈, C₆H₆ in smaller quantities. In case of rain or watering, there is a possibility of phosphine PH₃ formation.
- Soot contains metallic oxides and hydroxides, particularly lithium.
- Fire extinguishing water may be basic (pH 11 to 12) and contain phosphorus, sulfur, fluorine, carbon, and metals such as iron, copper, aluminum, lithium. In this case, take appropriate measures should be taken depending on the site's configuration. Firefighting water must be disposed of in accordance with the regulations on hazardous waste treatment.
- Residues from combustion are sensitive to moisture. Under certain conditions of temperature and humidity, residues may heat up, release smoke, phosphine PH₃ and acetylene C₂H₂. Combustion residues must be destroyed by incineration. It is mandatory to wear an SCBA type respirator or mask with a P3R A2B2E2K2 filter during presence around the residues.

11- TOXICOLOGICAL INFORMATION

The Lithium Metal Polymer Battery is a manufactured product that does not present a toxicological risk as long as its integrity is maintained.

12- ECOLOGICAL INFORMATION

The Lithium Metal Polymer Battery pose no danger to the environment if it is used or disposed of as waste in an appropriate manner.

13- DISPOSAL CONSIDERATIONS

Lithium Metal Polymer Batteries must be disposed of in accordance with the regulations governing batteries and accumulators.

Blue Solutions offers a disposal route. Depending on the contractual provisions agreed upon, Lithium Metal Polymer Batteries can be either handed over to Blue Solutions for treatment or disposed of directly by the customer in strict compliance with the applicable regulations.

Any compacting operation of Lithium Metal Polymer batteries is prohibited due to the risk of fire.

14- TRANSPORT INFORMATION

International Conventions:

RID: no information

ADR:

- UN 3090
- Lithium Metal Batteries
- Class 9
- Code Tunnel: (E)

IMDG:

- UN 3090
- Lithium metal batteries
- Class 9
- Safety Data: (F-A, S-I)

IATA:

Transport by Passenger & Cargo Aircraft is Prohibited.

15- REGULATORY INFORMATION

Regulations for chemicals products and preparations do not apply to manufactured products such as Lithium Metal Polymer Batteries

16- OTHER INFORMATION

H260: In contact with water releases flammable gases which may ignite spontaneously

H314: Causes severe skin burns and eye damage

EUH014: Reacts violently with water

H290: May be corrosive to metals

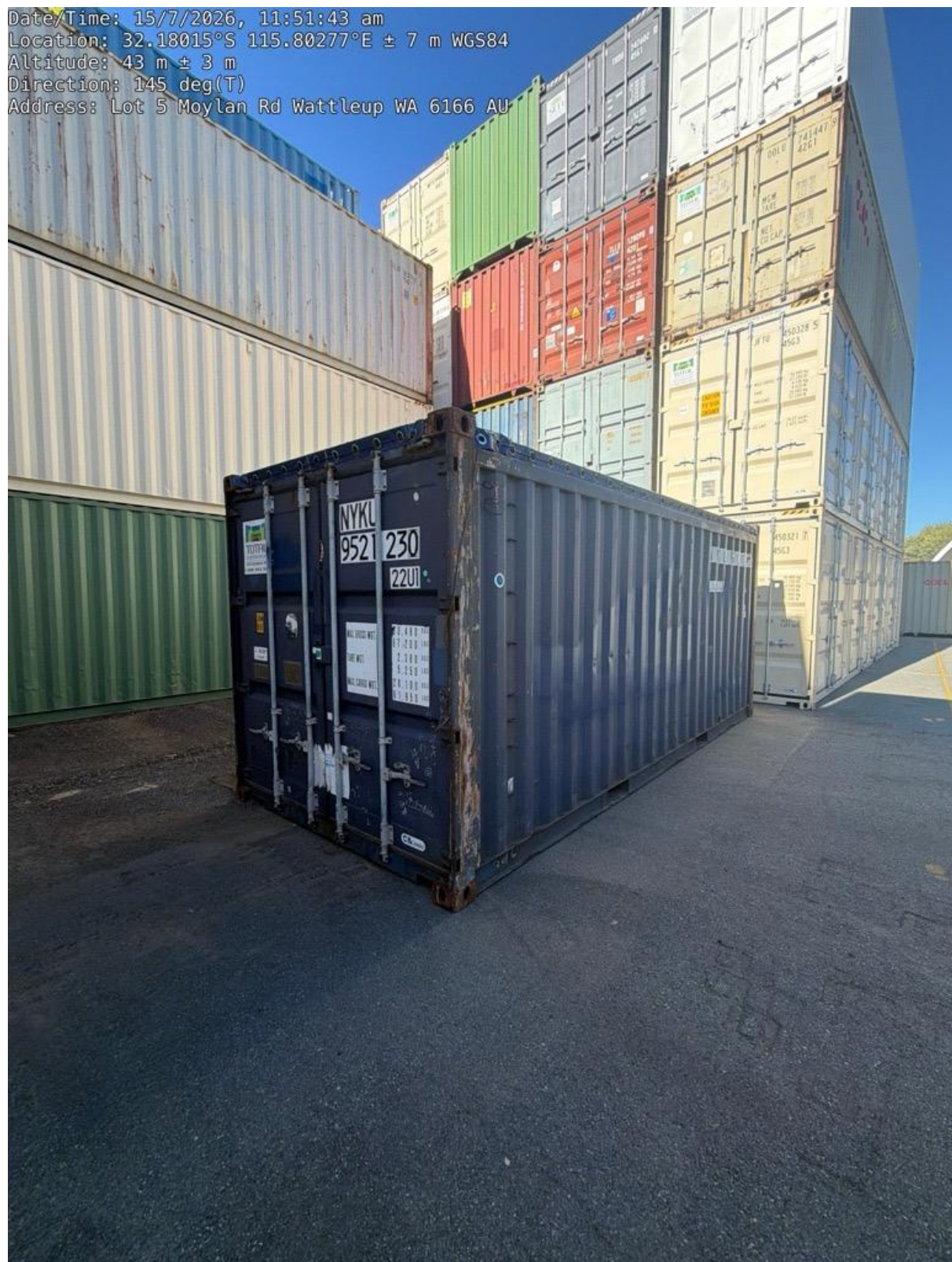
H301: Toxic if swallowed

H311: Toxic in contact with skin

H373: May cause damage to organs through prolonged or repeated exposure

H412: Harmful to aquatic life with long lasting effects.

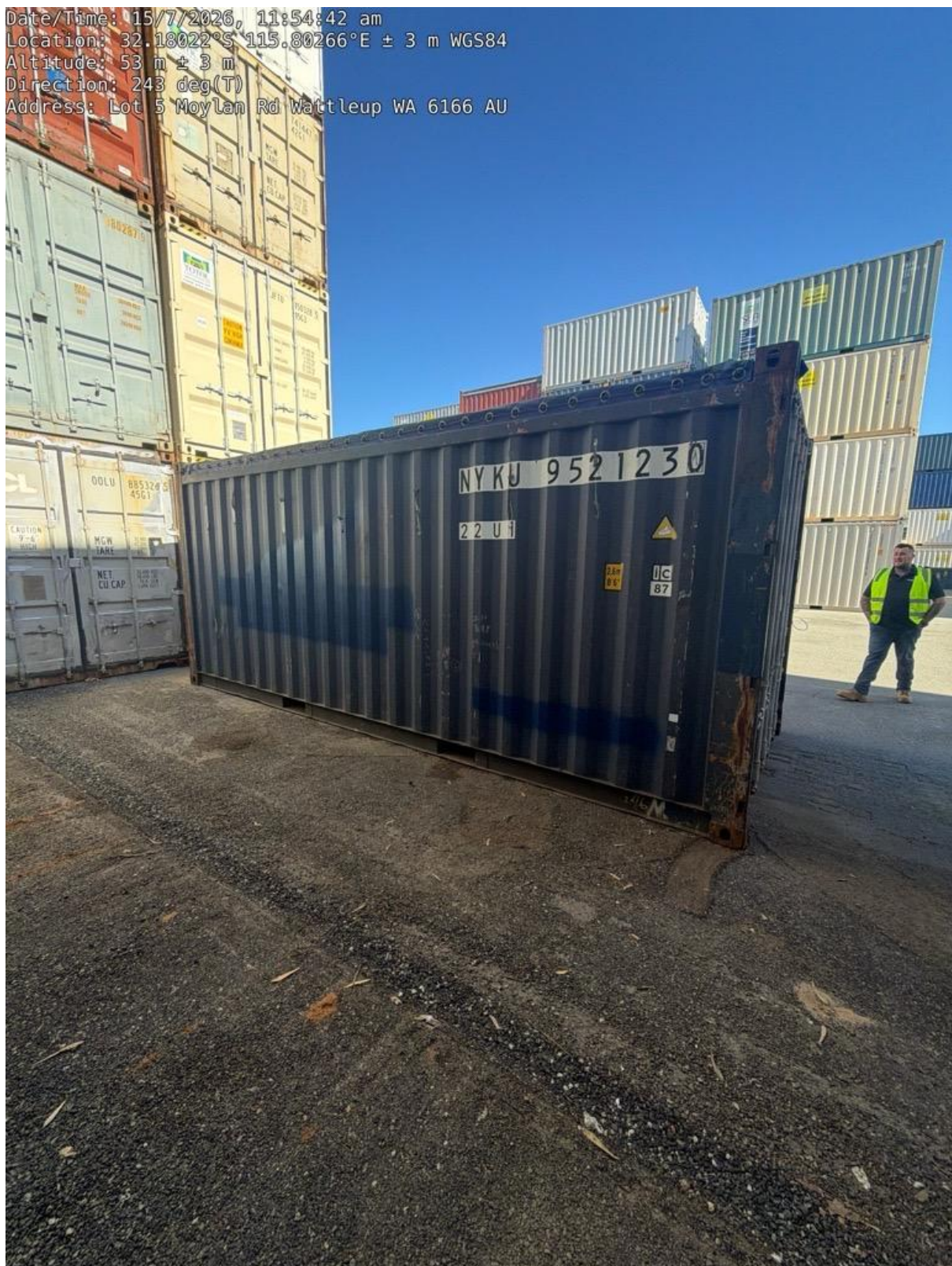
Appendix B: Photographs of waste packages



Date/Time: 15/7/2026, 11:53:00 am
Location: 32.18016°S 115.80279°E ± 48 m WGS84
Altitude: 20 m ± 3 m
Direction: 164 deg(T)
Address: Lot 5 Moylan Rd Wattleup WA 6166 AU



Date/Time: 15/7/2026, 11:54:42 am
Location: 32.18022°S, 115.80266°E ± 3 m WGS84
Altitude: 53 m ± 3 m
Direction: 243 deg(T)
Address: Lot 5 Moylan Rd Wattleup WA 6166 AU





Date/Time: 15/7/2026, 11:54:31 am
Location: 32.18022°S 115.80269°E ± 6 m WGS84
Altitude: 67 m ± 3 m
Direction: 232 deg(T)
Address: Lot 5 Moylan Rd Wattleup WA 6166 AU

Appendix C: Packaging supplier details

Shipping containers provided by Hazard Australia Pty Ltd, sourced second-hand so original supplier is unknown.

Supplier details:

Hazard Australia Pty Ltd

34 Cocos Drive, Bibra Lake WA 6163

08 9418 4200

Appendix D: Verification/
Inspection
Records

OFFICIAL

INTRACTABLE WASTE DISPOSAL FACILITY
MT WALTON EAST, WESTERN AUSTRALIA
WASTE INSPECTION RECORD
IWDF-FORM-53

Inspector: [REDACTED]	Date: 23/07/2026
Site Location: Maddington and Wattleup	
Waste Owner: DWER	
Site Contact: [REDACTED]	
Waste Description: Defective lithium metal batteries and fire-affected batteries	
Disposal Operation: 2026NRT01	

Phase of Inspection:		
☒ Preliminary assessment	☐ Post-packaging	☐ Arrival at IWDF
☐ Treatment/Packaging of waste	☐ Loading for transport	☐ Other (specify)

Issue/Criteria	Checked (tick)	Comments (Details regarding nature of waste, filling material, type of packaging, type of seal, specific packages that are not compliant, etc.)
Waste is solid, with no potential for separation of free liquid	Yes ☒ No ☐ n/a ☐	
The waste is double contained (primary and secondary packaging)	Yes ☐ No ☐ n/a ☒	See appropriate justification in WAC
The primary packaging:		
Is intact	Yes ☒ No ☐ n/a ☐	
Is sealed	Yes ☐ No ☐ n/a ☒	See reasons in WAC
Is free of external contamination	Yes ☒ No ☐ n/a ☐	
Is numbered	Yes ☐ No ☐ n/a ☒	Not yet but will be
Has a suitable dangerous goods label	Yes ☐ No ☐ n/a ☒	Not yet but will do
Each package is filled so as to contain no significant void space	Yes ☒ No ☐ n/a ☐	Will be topped up on site, if necessary, as transport weight cannot be exceeded
The secondary container:		
Is intact	Yes ☐ No ☐ n/a ☒	
Is sealed	Yes ☐ No ☐ n/a ☒	
Is free of external contamination	Yes ☐ No ☐ n/a ☒	
Is numbered	Yes ☐ No ☐ n/a ☒	
Has a suitable dangerous goods label	Yes ☐ No ☐ n/a ☒	
The waste has appropriate chain of custody documentation:		
Loading Checklist	Yes ☐ No ☐ n/a ☒	Prior to loading
Chain of Custody Record	Yes ☐ No ☐ n/a ☒	At loading
Certificate of Identification	Yes ☐ No ☐ n/a ☒	In OTP
Controlled Waste Tracking Form	Yes ☐ No ☐ n/a ☒	In OTP if necessary
Weight of waste packages given?	Yes ☐ No ☐ n/a ☒	In OTP
Photographs taken?	Yes ☒ No ☐ n/a ☐	Included in OTP
If radioactive material - has an assessment against the Safety Case been completed by the RSO?	Yes ☐ No ☐ n/a ☒	

Original to FMC Operations Manager (or IWDF Waste Delivery File if at IWDF site). Copy to DHW IWDF Project Manager.

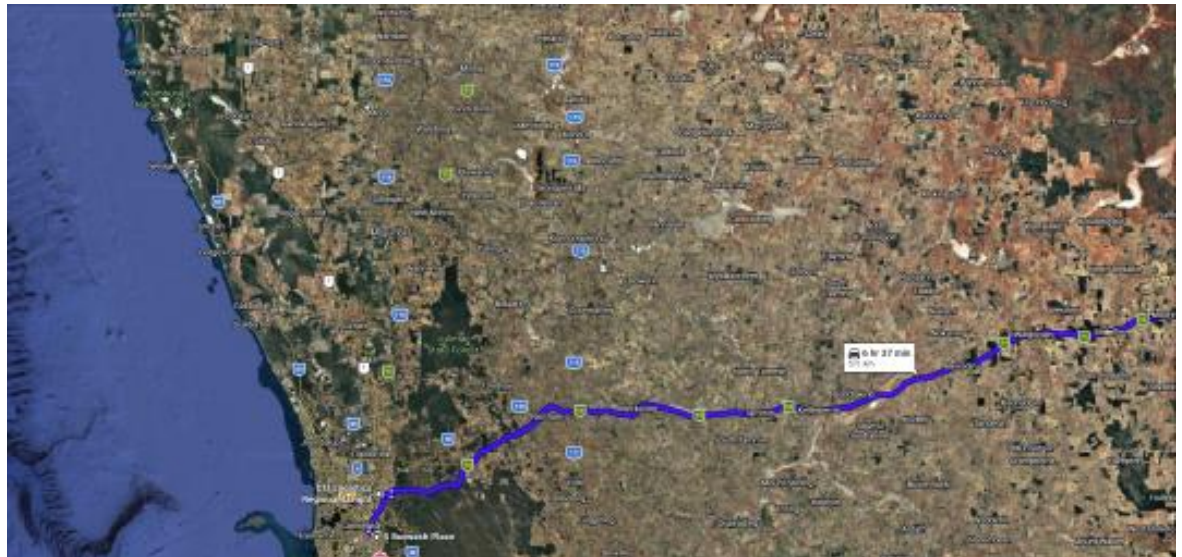
6

ROUTE

The selected route from Li Ion Energy 5 Burwash Place, Maddington is to the IDWF is detailed below. The route incorporates the single container as a semi-trailer from Li Ion Energy 5 Burwash Place, Maddington to the CTI Yard in Hazelmere where the cargo will be reconfigured to B Doubles. The B Doubles will continue the transit to the IWDF.

The route is illustrated in Figure 1.

Figure 1: Overall Route



6.1

ROUTE DIRECTIONS

Details of the selected route follow. The popularity and use of tools such as google maps and navigation aids does not justify the inclusion of detailed maps in this section. These directions include details for the Scheduled Inspections which can also be used for an emergency event.

Directions

In semi-trailer configuration:

1. From Li Ion Energy 5 Burwash PI Maddington, travel approximately 100 m towards Albany Hwy Route 30 in an easterly direction.
2. At Albany Hwy Intersection, turn right to proceed along Albany Hwy Route 30 in a northerly direction toward Kenwick Link for approximately 1.7 km.
3. Take the ramp to Kenwick Link Route 30 and continue for approximately 3 km to Roe Hwy Route 3.
4. At Roe Hwy, turn Right for the on ramp onto Roe Hwy Route 3 and travel easterly for approximately 14 km to Gt Eastern Hwy Bypass Route 94.

5. At Gt Eastern Hwy Bypass Route 94, take the Left off ramp to travel in a westerly direction for approximately 650 m to Stirling Crescent.
6. At Stirling Crescent, turn Right to travel in a northerly direction for approximately 900 m to Bushmead Rd round-about.
7. At Bushmead Road round-about, turn Left in a westerly direction for approximately 850 m to enter the CTI Yard at 316 Bushmead Rd.
8. At the CTI Yard, undertake to reconfigure the vehicle to a B Double.

In B Double configuration:

9. Depart the CTI Yard in a B Double configuration and travel along Bushmead Rd in an easterly direction for approximately 850 m to Stirling Crescent.
10. At the round-about, take the 3rd exit to travel southerly along Stirling Crescent for approximately 900 m to Route 94 Gt Eastern Hwy Bypass.
11. At intersection with Route 94 Gt Eastern Hwy Bypass, turn Left and travel in a northerly direction along Roe Hwy for approximately 650 m.
12. At Gt Eastern Hwy Route 94 take the off ramp to merge with the Great Eastern Hwy Route 94 towards Kalgoorlie and travel in an easterly direction.
13. Continue on the Great Eastern Hwy Route 94 in an easterly direction and travel approximately 30 km.
14. After approximately 30 km, turn Right onto the Great Southern Hwy and then immediately turn Right to access the BP The Lakes Truck Stop. Then stop for a Scheduled Inspection, and rest break.
15. Upon completion of the Scheduled Inspection, continue with the exit ramp to the Great Eastern Hwy Route 94, and turn right to continue travel eastwards towards Kalgoorlie.
16. Continue along the Great Eastern Hwy Route 94 in an easterly direction for approximately 55 km, and then turn Right onto Yilgarn Ave to travel westerly. Proceed approximately 1 km and access the Northam Road Train Assembly Area. Then stop for a Scheduled Inspection, and rest break.
17. Upon completion of the Scheduled Inspection, exit the Northam Road Train Assembly Area, turn Left to travel easterly for approximately 1 km along Yilgarn Ave. Then turn right onto the Great Eastern Hwy Route 94 to travel easterly towards Kalgoorlie.
18. Continue along the Great Eastern Hwy Route 94 in an easterly direction for approximately 78 km, and use the left off ramp to access the Tammin Roadhouse. Then stop for a Scheduled Inspection, and rest break.

19. Upon completion of the Scheduled Inspection, exit the Tammin Roadhouse to turn Right onto Yorkrakine Rd and then join the Great Eastern Hwy Route 94 to travel in an easterly direction towards Kalgoorlie.
20. Continue on the Great Eastern Hwy Route 94 in an easterly direct for approximately 78 km and then turn Right to access the BP Truckstop Merredin. Then stop for a Scheduled Inspection, and rest break.
21. Upon completion of the Scheduled Inspection, exit the BP Truckstop Merredin and return to the Great Eastern Hwy Route 94, and travel in an easterly direction towards Kalgoorlie.
22. Continue on the Great Eastern Hwy Route 94 in an easterly direct for approximately 109 km and then veer left to access the BP Truckstop Southern Cross. Then stop for a Scheduled Inspection, and rest break.
23. Upon completion of the Scheduled Inspection, exit the BP Truckstop Southern Cross and rejoin the Great Eastern Hwy Route 94, and travel in an easterly direction towards Kalgoorlie.
24. Continue on the Great Eastern Hwy Route 94 in an easterly direction for approximately 96 km and then use the Left turn lane to take the Mt Walton Rd in Boorabbin with a sign indicating Sandy Ridge Facility.
25. Continue on the Mt Walton Rd in a northerly easterly direction for approximately 53 km and then veer Left to use a lay down area prior to the train line. Then stop for a Scheduled Inspection, and rest break.
26. Upon completion of the Scheduled Inspection, continue on the Mt Walton Rd in a northerly direction for approximately 50 km to arrive at the Intractable Waste Disposal Facility (IWDF) which is on the right.

6.2 ROUTE REVIEW

The selected route provides a direct route from Li Ion Energy 5 Burwash Place, Maddington to the IWDF at Mt Walton. The route has been developed in consultation with Main Roads, EPA and DWER. Consideration has been given to avoiding populated areas, and the capability of the roadway to accommodate the vehicle loads.

The scheduling for the execution of each transit will consider the potential traffic dynamics and the opening times for the IWDF to accept the consignment.

The transport will utilise escort vehicles positioned at the front (lead escort) and rear (trail escort) of the truck carrying the shipping containers.

All transport vehicles and containers to have correct signage and UN numbers fitted, transport drivers will be suitably licenced as per the Dangerous Goods Legislation (Dangerous Goods Drivers Licence). The transit of the Fire Damaged LMP will be undertaken by CTI.

Appendix G: Transport Procedures. Contains JMP, generic company TERP, samples SWMS for initial transport of material, LGIRS determination.



HAZRAD AUSTRALIA PTY LIMITED
JOURNEY MANAGEMENT PLAN
&
EMERGENCY MANAGEMENT PLAN

FIRE DAMAGED LMP
Li ION ENERGY MADDINGTON to INTRACTABLE
WASTE DISPOSAL FACILITY, Mt WALTON EAST

DATE: 23RD JULY 2026
REV: 0
FILE: J196 JMP M TO MW

DOCUMENT REVISION RECORD

Rev.	Date	Description	Prepared	Reviewed	Approved
0	23/07/2026	Issued	ESSR	SR	SR
Title: HAZRAD AUSTRALIA PTY LIMITED Journey Management Plan & Emergency Management Plan Li Ion Energy Maddington to Intractable Waste Disposal Facility, Mt Walton East			QA Verified		

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ABBREVIATIONS

ADG	Australian Code for the Transport of Dangerous Goods by Road & Rail
App.	Appendix
Attach.	Attachment
CoP	Code of Practice
CTI	CTI Logistics Ltd
DFES	Department of Fire and Emergency Services
DG	Dangerous Good(s)
DGO	Dangerous Goods Officer
DWER	Department of Water and Environmental Regulation
Dwg	Drawing
EP	Emergency Plan
ESSR	ESSR Pty Ltd
HazRad	HazRad Australia Pty Ltd
IWDF	Intractable Waste Disposal Facility
LGIRS	Department of Local Government, Industry Regulation and Safety
Li	Lithium
LMP	Lithium Metal Phosphate
m	metres
NTC	National Transport Commission
PG	Packing Group
SDS	Safety Data Sheet
SOP	Standard Operating Procedure
t	tonne
UN NO.	United Nations number
WA	Western Australia
&	and
e.g.	exempli gratia meaning “for example”
i.e.	id est meaning “in other words”

1

SUMMARY

This Journey Management Plan (JMP) provides details of the proposed journey route for the transport of Fire Damaged Lithium Metal Phosphate (LMP). The route commences at Li Ion Energy 5 Burwash Place, Maddington, and terminates at the Intractable Waste Disposal Facility (IWDF), Mt Walton East.

The Fire Damaged LMP and other fire debris are located in freight containers with a covering of fire damaged fill, and potentially clean sand or vermiculite. The freight containers are covered with tarps. The materials of construction of the shipping containers are steel and DFES have previously advised these are suitable

This document provides the details for the Journey Management Plan including cargo setup, convoy and management details, condition monitoring, route details, reporting, and emergency management

HazRad has commissioned ESSR Pty Ltd (ESSR), which is accredited by the Department of Local Government, Industry Regulation and Safety (LGIRS), to prepare this Journey Management Plan (JMP).

2

SCOPE

The Fire Damaged LMP and other fire debris are located in freight containers with a covering of fire damaged fill, and potentially clean sand or vermiculite. The freight containers are covered with tarps that are primarily made from heavy-duty, UV-treated PVC-coated polyester fabric. The materials of construction of the shipping containers are steel and DFES have previously advised these are suitable.

The dimensions for the freight containers are 6.05 m long, 2.43 m wide, and 2.60 m tall. The mass for each container will be approximately 25 t to 30 t, with approximately 9 t of Dangerous Goods (DGs).

The tarps are waterproof, rot-proof, and tear-resistant to withstand harsh marine and inland weather conditions. Their material and design features are:

- **PVC-Coated Polyester:** Provides superior durability, blocking out rain and sun while remaining flexible enough to be pulled over bulky or over-height cargo.
- **Steel Wire/Rope Securing:** The tarps are secured to the container using a steel wire or custom rope that runs through eyelets in the tarp and loops over rings welded to the container's top rails.
- **Tensioning & Eyelets:** They are generally finished with welded seams, reinforced hemmed edges, and rust-resistant industrial eyelets to allow heavy-duty tensioning.

LGIRS has advised the Fire Damaged LMP are deemed to be Dangerous Goods (DGs) as per the requirements off the ADG Code Edition 7.9 and published by the NTC. Further LGIRS advises the Fire Damaged LMP are assigned the UN No. designation as either:

- UN 3090 DG Division 9 materials with the proper shipping name “LITHIUM METAL BATTERIES (including lithium alloy batteries)”,
- UN 3091 DG Division 9 materials with the proper shipping name “LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT (including lithium alloy batteries)”,
- UN 3091 DG Division 9 materials with the proper shipping name “LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT (including lithium alloy batteries)”,
- UN 3480 DG Division 9 materials with the proper shipping name “LITHIUM ION BATTERIES (including lithium ion polymer batteries)”,
- UN 3481 DG Division 9 materials with the proper shipping name “LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT (including lithium ion polymer batteries)”,
- UN 3481 DG Division 9 materials with the proper shipping name “LITHIUM ION BATTERIES PACKED WITH EQUIPMENT (including lithium ion polymer batteries)”,
- UN3551 DG Division 9 materials with the proper shipping name “SODIUM ION BATTERIES with organic electrolyte”,
- UN3552 DG Division 9 materials with the proper shipping name “SODIUM ION BATTERIES CONTAINED IN EQUIPMENT”, and
- UN3552 DG Division 9 materials with the proper shipping name “SODIUM ION BATTERIES PACKED WITH EQUIPMENT, with organic electrolyte”.

All materials are classified by the ADG Code as Division 9 with no PG. The current basis of design is the materials is regarded as a solid, and stored loosely in the freight containers.

There will be 15 x containers are be transported to the Intractable Waste Disposal Facility, Mt Walton East from Li Ion Energy 5 Burwash Place, Maddington.

Due to access restrictions, the containers will be transported as single units to the CTI Yard in Hazelmere (eg as semi trailers). At the CTI Yard in Hazelmere, the cargoes will be reconfigured to the nominal configuration of B-Doubles and/or Pocket Road Train (hereafter referred to as B-Doubles). These reconfigured cargoes will transport the materials to Mt Walton IDWF.

The B-Doubles will be configured to include side lifters to accommodate the unloading of the containers at IWDF. There is a limit of 10 containers for each transit and therefore there will be at least 2 convoys. The requirements for these convoys are provided in Section 4.

Each convoy will include escorts and these details are provided in Section 5. Details for the selected route are provided in Section 6 and actions to be taken in the event of an unforeseen incident are provided in Section 8.

The selected route minimises public exposure, particularly to residential areas. However, due to the nature of the load, the operation carries elevated risk and requires dedicated crews and appliances to monitor the convoy and provide immediate incident response capability. The Emergency Management provisions for this transit are outlined in Section 8 of this document.

3 OBJECTIVE

The objectives of this JMP are to:

- enable the safe transport of the Fire Damaged LMP;
- manage the risk of thermal runaway, fire and gas release during transport;
- specify enforceable control measures for containment, monitoring and emergency response; and
- facilitate the controlled transfer of batteries to IWDF at Mt Walton East for disposal.

The person in control of the transport must ensure that all reasonably practicable measures are taken to prevent:

- thermal runaway;
- fire propagation
- pressure build up within containers;
- uncontrolled release of gases; and
- risk to people, property and the environment.

4 GENERAL CONVOY EXECUTION

4.1 GENERAL

Compliance with following instructions is required.

- Batteries must be transported in steel containers, skip bins, or equivalent non combustible containment units.
- Each container must:
 - fully contain the batteries and inert material
 - encapsulate batteries in sand, vermiculite or equivalent inert material
 - prevent battery movement during transport
 - prevent battery to battery contact so far as reasonably practicable
 - be covered but not gas tight
 - incorporate controlled venting sufficient to prevent pressure build up
 - maintain structural integrity during normal transport
 - prevent loss of contents
 - segregate different battery chemistries as much as reasonably practicable
- Controlled venting must:
 - allow gradual release of gases from container headspace
 - prevent pressure accumulation
 - be arranged so that venting does not create direct airflow through the encapsulated battery mass
 - be positioned, where practicable, to reduce exposure of persons to released gases
 - be kept clear of ignition sources
- The following are prohibited:
 - transport in sealed gas tight containers
 - transport in open uncovered containers
 - transport of loose batteries without inert encapsulation and restraint

4.2 MONITORING

Prior to transport, each container must be inspected for:

- elevated temperature
- visible smoke, vapour or gas emission
- deformation or swelling
- damage to container or vent system

During transport:

- inspections must be carried out at scheduled intervals (see Section 7)
- container surfaces and vent outlets must be monitored
- temperature must be monitored by suitable means
- any abnormal condition must trigger immediate response

4.3 OPERATIONAL

- Prior to transport, containers must be:
 - assessed as stable
 - segregated and documented
- During transport
 - vehicles must not be left unattended
 - communication must be maintained between convoy vehicles
 - inspections must be conducted at scheduled intervals (see Section 7)
- Drivers must be trained in lithium battery emergency response
- Vent related conditions
 - vent outlets must not be blocked or sealed
 - personnel must remain clear of vent outlets
 - external stabilisation using sand or blankets may be undertaken if safe

4.4 DOCUMENTATION

- The following must be carried:
 - dangerous goods transport document
 - emergency response information
 - a copy of this instrument
 - inspection and monitoring records
 - route plan with identified stop locations
- The transport document must include:
 - UN number and proper shipping name
 - the statement "Transport in accordance with Special Provision 376"
 - reference to Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Determination (No. 2) 2026.

4.5 CONVOY CONFIGURATION

Each convoy will consist of up to 5 x B-Double vehicles and will include escort vehicles (ie lead and rear) and support vehicles. Details of the escort vehicles are provided in Section 5. The support vehicles will provide personnel and equipment monitor and take necessary actions in the event of an unforeseen incident. This will include vehicles for sand supply and other emergency management.

4.6 CONVOY COMMUNICATIONS

The convoy will utilise various communication tools for the execution of this transit, which includes:

- Verbal communications at start, conclusions, rest stops and scheduled inspections;
- Mobile phones if coverage is available;
- UHF Channel 27 UHF be used for intra-convoy communications; and
- UHF Channel 40 UHF which is the Australia-wide road safety channel, used mainly by trucks and heavy vehicles, and can be used to communicate with emergency services.

5 ESCORTS

The following requirements apply for escorts:

- Transport must be conducted under convoy conditions.
- The convoy must include:
 - a lead escort vehicle
 - a rear escort vehicle
- Escort personnel must be trained in:
 - lithium battery hazards
 - emergency response procedures
- The transport route must be pre approved and must, so far as reasonably practicable:
 - avoid tunnels
 - avoid high density urban areas
 - include planned emergency pull over locations suitable for:
 - ✚ safe stopping of the transport unit
 - ✚ establishment of an exclusion zone
 - ✚ access by emergency services
- be documented and carried in the transport documentation.

The convoy and escort vehicles will comprise:

- Lead Escort - Main Roads traffic escort),
- 5 x B-Doubles,
- Rear Escort - 1 x main roads approved escort vehicle, which will be followed by 2 x hazard response vehicles with 1 x vehicle with 10 x 20 kg bags of sand, a rake and shovel.

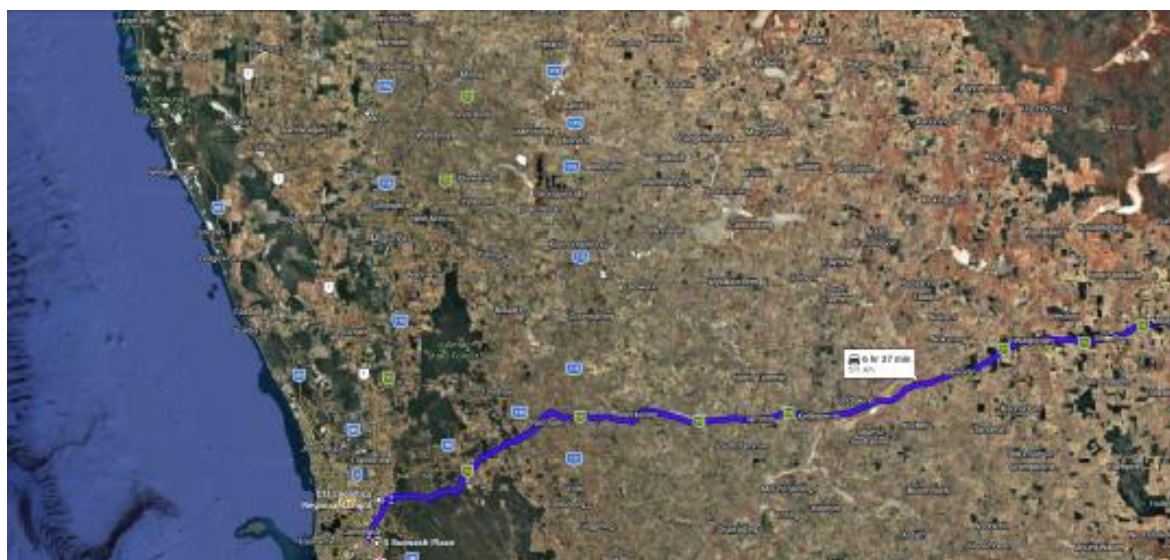
6

ROUTE

The selected route from Li Ion Energy 5 Burwash Place, Maddington is to the IDWF is detailed below. The route incorporates the single container as a semi-trailer from Li Ion Energy 5 Burwash Place, Maddington to the CTI Yard in Hazelmere where the cargo will be reconfigured to B Doubles. The B Doubles will continue the transit to the IWDF.

The route is illustrated in Figure 1.

Figure 1: Overall Route



6.1

ROUTE DIRECTIONS

Details of the selected route follow. The popularity and use of tools such as google maps and navigation aids does not justify the inclusion of detailed maps in this section. These directions include details for the Scheduled Inspections which can also be used for an emergency event.

Directions

In semi-trailer configuration:

1. From Li Ion Energy 5 Burwash PI Maddington, travel approximately 100 m towards Albany Hwy Route 30 in an easterly direction.
2. At Albany Hwy Intersection, turn right to proceed along Albany Hwy Route 30 in a northerly direction toward Kenwick Link for approximately 1.7 km.
3. Take the ramp to Kenwick Link Route 30 and continue for approximately 3 km to Roe Hwy Route 3.
4. At Roe Hwy, turn Right for the on ramp onto Roe Hwy Route 3 and travel easterly for approximately 14 km to Gt Eastern Hwy Bypass Route 94.

5. At Gt Eastern Hwy Bypass Route 94, take the Left off ramp to travel in a westerly direction for approximately 650 m to Stirling Crescent.
6. At Stirling Crescent, turn Right to travel in a northerly direction for approximately 900 m to Bushmead Rd round-about.
7. At Bushmead Road round-about, turn Left in a westerly direction for approximately 850 m to enter the CTI Yard at 316 Bushmead Rd.
8. At the CTI Yard, undertake to reconfigure the vehicle to a B Double.

In B Double configuration:

9. Depart the CTI Yard in a B Double configuration and travel along Bushmead Rd in an easterly direction for approximately 850 m to Stirling Crescent.
10. At the round-about, take the 3rd exit to travel southerly along Stirling Crescent for approximately 900 m to Route 94 Gt Eastern Hwy Bypass.
11. At intersection with Route 94 Gt Eastern Hwy Bypass, turn Left and travel in a northerly direction along Roe Hwy for approximately 650 m.
12. At Gt Eastern Hwy Route 94 take the off ramp to merge with the Great Eastern Hwy Route 94 towards Kalgoorlie and travel in an easterly direction.
13. Continue on the Great Eastern Hwy Route 94 in an easterly direction and travel approximately 30 km.
14. After approximately 30 km, turn Right onto the Great Southern Hwy and then immediately turn Right to access the BP The Lakes Truck Stop. Then stop for a Scheduled Inspection, and rest break.
15. Upon completion of the Scheduled Inspection, continue with the exit ramp to the Great Eastern Hwy Route 94, and turn right to continue travel eastwards towards Kalgoorlie.
16. Continue along the Great Eastern Hwy Route 94 in an easterly direction for approximately 55 km, and then turn Right onto Yilgarn Ave to travel westerly. Proceed approximately 1 km and access the Northam Road Train Assembly Area. Then stop for a Scheduled Inspection, and rest break.
17. Upon completion of the Scheduled Inspection, exit the Northam Road Train Assembly Area, turn Left to travel easterly for approximately 1 km along Yilgarn Ave. Then turn right onto the Great Eastern Hwy Route 94 to travel easterly towards Kalgoorlie.
18. Continue along the Great Eastern Hwy Route 94 in an easterly direction for approximately 78 km, and use the left off ramp to access the Tammin Roadhouse. Then stop for a Scheduled Inspection, and rest break.

19. Upon completion of the Scheduled Inspection, exit the Tammin Roadhouse to turn Right onto Yorkrakine Rd and then join the Great Eastern Hwy Route 94 to travel in an easterly direction towards Kalgoorlie.
20. Continue on the Great Eastern Hwy Route 94 in an easterly direct for approximately 78 km and then turn Right to access the BP Truckstop Merredin. Then stop for a Scheduled Inspection, and rest break.
21. Upon completion of the Scheduled Inspection, exit the BP Truckstop Merredin and return to the Great Eastern Hwy Route 94, and travel in an easterly direction towards Kalgoorlie.
22. Continue on the Great Eastern Hwy Route 94 in an easterly direct for approximately 109 km and then veer left to access the BP Truckstop Southern Cross. Then stop for a Scheduled Inspection, and rest break.
23. Upon completion of the Scheduled Inspection, exit the BP Truckstop Southern Cross and rejoin the Great Eastern Hwy Route 94, and travel in an easterly direction towards Kalgoorlie.
24. Continue on the Great Eastern Hwy Route 94 in an easterly direction for approximately 96 km and then use the Left turn lane to take the Mt Walton Rd in Boorabbin with a sign indicating Sandy Ridge Facility.
25. Continue on the Mt Walton Rd in a northerly easterly direction for approximately 53 km and then veer Left to use a lay down area prior to the train line. Then stop for a Scheduled Inspection, and rest break.
26. Upon completion of the Scheduled Inspection, continue on the Mt Walton Rd in a northerly direction for approximately 50 km to arrive at the Intractable Waste Disposal Facility (IWDF) which is on the right.

6.2 ROUTE REVIEW

The selected route provides a direct route from Li Ion Energy 5 Burwash Place, Maddington to the IWDF at Mt Walton. The route has been developed in consultation with Main Roads, EPA and DWER. Consideration has been given to avoiding populated areas, and the capability of the roadway to accommodate the vehicle loads.

The scheduling for the execution of each transit will consider the potential traffic dynamics and the opening times for the IWDF to accept the consignment.

The transport will utilise escort vehicles positioned at the front (lead escort) and rear (trail escort) of the truck carrying the shipping containers.

All transport vehicles and containers to have correct signage and UN numbers fitted, transport drivers will be suitably licenced as per the Dangerous Goods Legislation (Dangerous Goods Drivers Licence). The transit of the Fire Damaged LMP will be undertaken by CTI.

The selected route minimises public exposure, particularly to residential areas. A desk top review of the selected route has identified there are no vulnerable facilities and critical infrastructure in the immediate area of the selected route.

However, due to the nature of the load, the operation carries elevated risk and requires dedicated crews and appliances to monitor the convoy and provide immediate incident response capability. The Emergency Management provisions for this transit are outlined in Section 8 of this document.

7 SCHEDULED INSPECTIONS/MONITORING

Each transit will include scheduled inspections and monitoring of the consignment. The ongoing monitoring will be undertaken by all vehicle drivers to visually identify any changes to the consignment such as the generation of smoke/materials of combustion and flame.

The approximate frequency of the scheduled inspection will be 1 hour dependent on location, traffic, and weather conditions.

The locations of the scheduled inspections are:

- BP The Lakes Truck Stop;
- Northam Road Train Assembly Area;
- Tammin Roadhouse;
- BP Truck Stop Merredin;
- BP Truck Stop Southern Cross; and
- Prior to the train line on the Mt Walton access road.

The inspection equipment that will be used at the scheduled inspections will augment the visual inspections, and includes:

- Thermal Imaging (FLIR), and
- Gas Detection (Multirae).

The HazRad safety culture software will be used to document and photograph inspections.

If the scheduled inspection and/or ongoing monitoring identifies an elevated result, consultation will be immediately convened with HazRad, DFES and the DGO to determine the applicable and agreed way forward. This consultation will occur on-site, and if necessary, by phone. The results and agreed outcomes will be documented by the HazRad safety culture software.

8 EMERGENCY RESPONSE PLAN

The fundamental principals for managing scenarios of unwanted events are outlined below.

- Each transport unit must carry or be supported by:
 - sand or vermiculite

- fire blankets suitable for lithium battery incidents
- appropriate extinguishers
- personal protective equipment
- In the event of overheating, gas release, smoke or fire:
 - the vehicle must stop immediately at a safe location
 - an exclusion zone must be established
 - personnel must remain upwind where practicable
 - DFES must be notified
- The Department of Fire and Emergency Services (DFES) must be immediately notified if there is evidence of:
 - escalating heat
 - smoke or fire
 - rapid or sustained gas release
 - container deformation or structural failure
 - any load arrangement that increases the consequence of escalation, including carriage of multiple high risk containers

8.1 FIRE/INCIDENT DURING TRANSPORT

In the event of a fire or incident involving the vehicle or load (Fire Damaged LMP, Division 9, UN 3090 and/or UN 3480) during transportation:

- HazRad Australia and other state agency vehicles to be in direct contact via channel 40 UHF with alternate channel 27 UHF to be used for intra-convoy communications.
- Escort vehicles to visually assess the shipping containers while being transport for any visual signs of emissions where reasonable practical.
- In the event of a visual discharge, immediately notify the convoy via radio that there is a potential release and seek advice from the DFES team leader.
- The truck driver must stop the vehicle safely and as soon as practicable in a location that minimises risk to the public, other traffic, and property. Activate hazard lights and emergency beacons.
- The lead escort will manage traffic ahead and warn oncoming vehicles. The trail escort will secure the rear, block following traffic, and assist with initial containment where safe to do so.
- In the event of a confirmed fire or chemical release within the container, DFES escort team leader is to advise if truck is to be decoupled from the trailer to prevent any movement of fire from the trailer.
- DFES to direct the HazRad transport provider CTI regarding relocation of prime mover away from the trailer. HazRad will defer to DFES for direction of the now isolated trailer. Lithium ion / Lithium Metal battery fires can involve a secondary thermal runaway, flammable gas release, and re-ignition. For small, accessible fires, use dry sand, Class D extinguishers, or approved dry chemical agents (refer to Emergency Response

Guide 138). HazRad staff and contractor will withdraw to a safe distance and allow DFES to respond. DFES appliances accompanying the convoy are equipped for initial response.

- Maintain a minimum exclusion zone of 50 m (or as directed by DFES) and prevent public or unauthorised access.
- Notify HazRad and ESSR Emergency Response Shift Manager immediately via the pre-arranged emergency contact.
- All personnel must wear appropriate PPE

The pre-positioned escort vehicles and support appliances provide the direct incident response capability required by this JMP. This Emergency Response Plan supplements the existing HazRad end point site Emergency Plan and any applicable Safety Data Sheet requirement noting that these are fire damaged batteries and a SDS may not be relevant



Dangerous Goods Emergency Response Plan (HAERP)



REVISION HISTORY

The original and subsequent revisions are to be approved.

Rev	Date	Description of change	Author	Approved
1	17/05/2021	Implemented		
2	08/05/2024	Add DG Class 2.1, 2.2 & 2.3 under section 6.1		
3	23/03/2026	Disposal facilities		

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1. INTRODUCTION

This plan has been developed to ensure there is minimal impact from incidents involving external customer products to the community, the public, environment and property. It is designed to minimise the adverse impact of transport and storage incidents involving customer products.

1.1. Purpose and Scope

It is Hazrad Australia's company policy to safeguard the wellbeing of employees, contractors, customers, the public and environment, as well as to protect and enhance the commercial performance and value of the company. This document outlines Hazrad Australia's *dangerous goods emergency response plan (HAERP)*, and as such sets out guidelines for the management of an emergency or major incident within transport, storage and handling operations. This document is limited in scope to the coverage of Western Australian specific geographic boundaries.

The purpose of the plan is to define a system that provides resources and methodology for controlling product emergencies that have the potential for harming people, property, or the environment. It is principally designed to cater for responding to spills for dangerous goods transporters throughout Western Australia.

The HAERP is a professionally coordinated system of response to transport and other incidents enabling efficient and effective use of *Hazrad Australia's* resources to reduce the risk to transporters of dangerous goods, our employees, the public and to the environment.

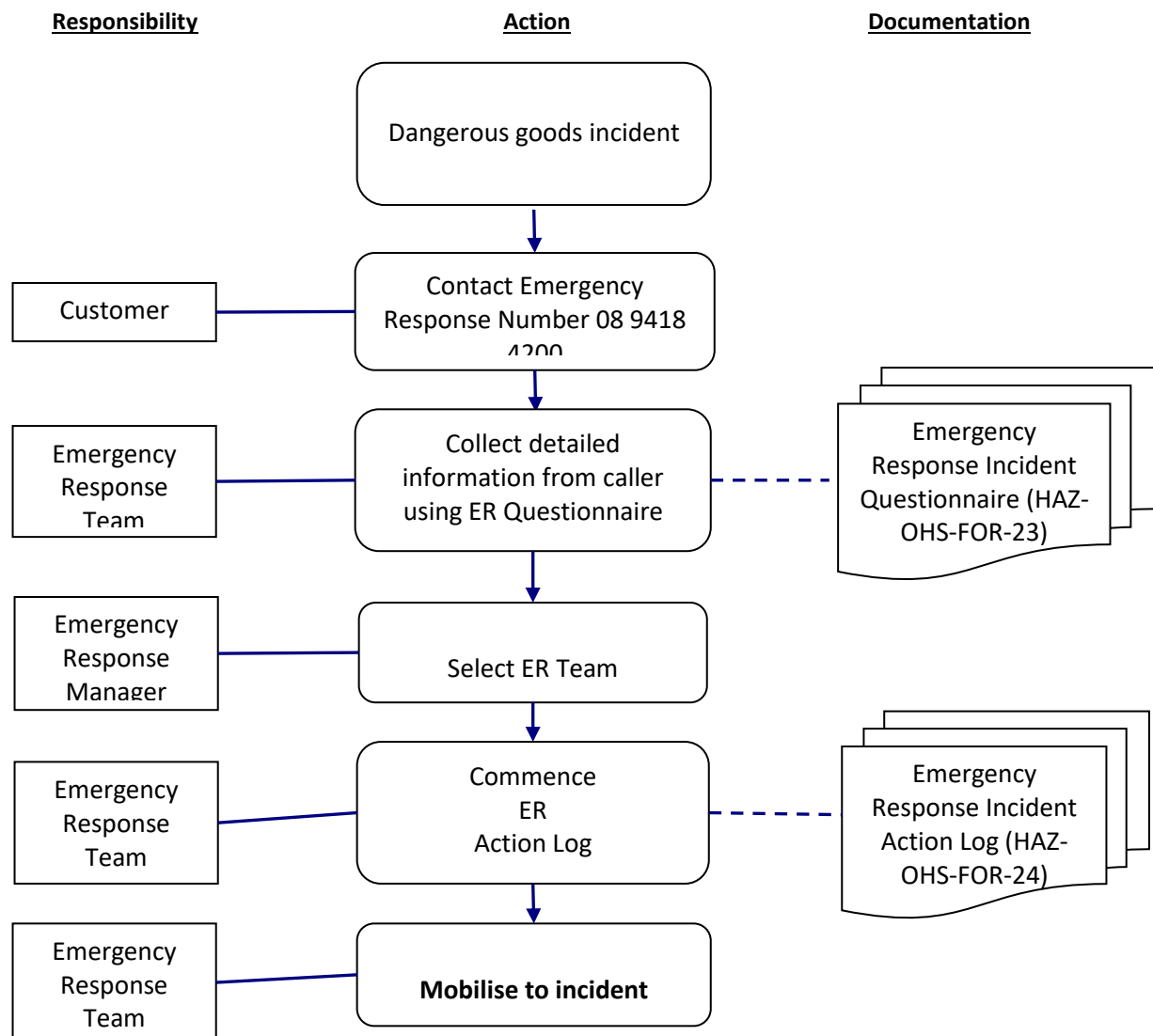
This plan shall provide training so that a high level of preparedness can be continually maintained and also provide a basis for updating and reviewing emergency procedures.

This plan shall be communicated to all staff, appropriate contractors, carriers (as engaged by Hazrad Australia), and statutory authorities.

1.2. Definitions

An emergency for the purposes of this plan, is defined as a hazardous situation (or a threat of a hazardous situation) which could require action to control, correct and return the identified situation to a safe condition and could also require timely action to protect people, property and the environment from harm.

1.3. Emergency Response – Flowchart



1.4. Responsibilities

1.4.1. Hazrad Australia

To ensure that all responsibilities are clear and implemented according to the HAERP.

1.4.2. Emergency Response (ER) Manager

- Awareness of plans; To ensure all staff are familiar with the emergency procedures found in this manual and are aware of the role they are expected to play.
- Implementation of plans; delegating to the ER controller, deciding the appropriate response to an emergency.
- Reviewing of document and emergency plans; The ER Manager is responsible for reviewing these plans annually and after exercises have been conducted.

The ER Manager must ensure the contact list is updated if changes occur. This will include any changes to any contractor named within the HAERP.

2. CONTACT REGISTERS

2.1. Emergency Response Resources Register

This list will be documented on Emergency Response Resources Register (HAZ-OHS-FOR-26).

At regular intervals the contact lists will be reviewed (and re-issued as required) by the ER Manager.

An audit of all contacts listed on Emergency Response Resources Register (HAZ-OHS-FOR-26) at least on an annual basis.

2.1.1. ER Team Personnel

The ER team is responsible for responding to the emergencies it has been assigned. In particular the team is responsible for:

- Addressing the direct incident
- Assessing of the emergency
- Local initial control of the emergency
- Local liaison with external authorities during an emergency
- Implementation of recovery, review measures and procedures
- Advising the ER manager
- Maintaining response equipment and appropriate stocks of materials and reagents

2.1.2. Subcontractors

Please refer to Emergency Response Resources Register (HAZ-OHS-FOR-26)

Hazrad works closely with Solo Resource Recovery and as such has access to vacuum tankers and Industrial Solutions (IS) equipment including heavy vacuum equipment.

Hazrad also works closely with Daynite Towing and has access to their extensive towing services. Additionally, Daynite also has a dedicated emergency response team, personnel and equipment.

Hazrad also has strong working relationships with solid waste disposal company West Tip Waste Control to provide earth moving plant, earth moving semi-tippers and bin services.

Waste Equipment Solutions provides Hazrad Australia with sweepers, gulley suckers, Bobcat excavators and bin services.

Global Spill Control provides spill control, safety equipment, absorbents and PPE locally. Global Spill Control has given Hazrad an assurance to provide a comprehensive and dedicated 24/7/365 service should they be required.

Environex International supplies supply reagents for neutralisation and immobilisation.

Jag Traffic supplies essential traffic management services for incidents on roads.

2.1.1. Physical Resources

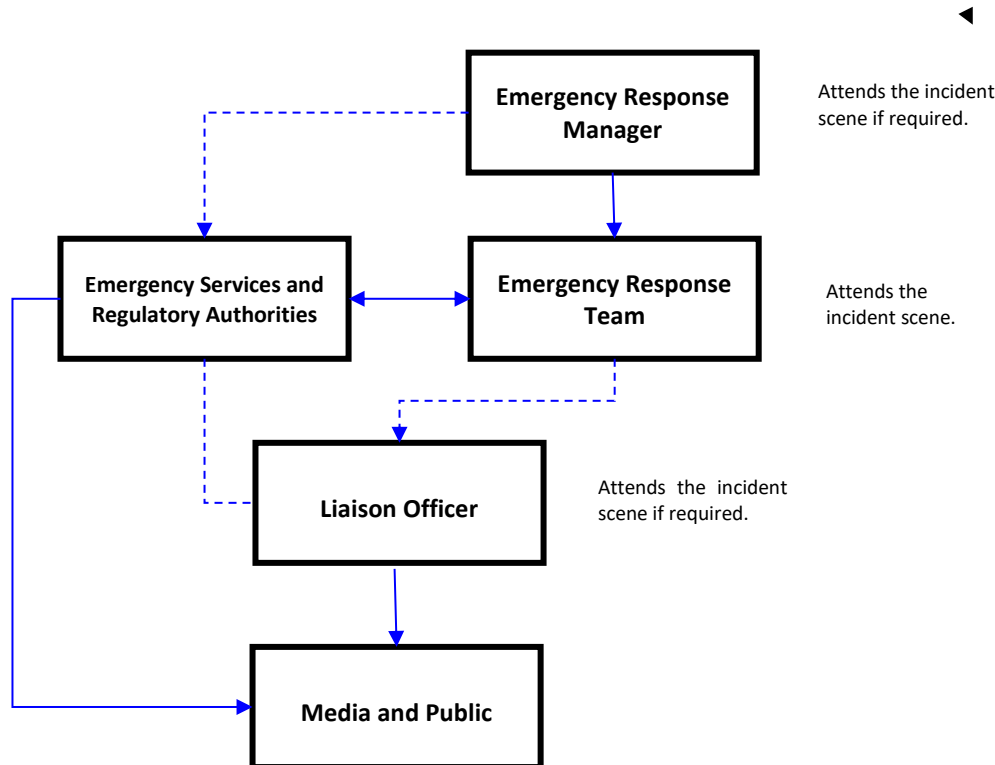
Hazrad Australia stocks a substantial quantity of PPE, spill control equipment, absorbents and other spill containment material items.

2.2. Safety Data Sheets

Our personnel have significant experience in handling a large variety of materials. If required, Safety Data Sheets will be accessed via the internet or directly supplied via clients or manufacturers. Additionally, transport information shall also be accessed through the Australian Emergency Response Guidebook (2018).

3. ROLES AND RESPONSIBILITIES

3.1. Role of Emergency Response Team



During any external emergency the lines of reporting and responsibility will be clearly defined from the beginning. This will be defined by the emergency response manager as above. The flowchart provides an overview of how the different respondents to the emergency will play their role.

The ER manager shall assist the ER team and be the non-operative link between the incident scene personnel and other personnel external to the scene as required.

At the scene of the incident the ER team will work under the direction of the ER Manager. Regular liaison with any attending emergency services groups is a key component to the ER team's activities.

Members of the ER team will consist of Hazrad Australia and Thuroona Services personnel who will liaise with the ER Manager at all times.

The media liaison officer will be the General Manager or a nominated representative.

3.2. ER Manager

ER team members will ensure the **Emergency Response Incident Action Log (HAZ-OHS-FOR-24)** is updated in a timely manner and then completed upon completion of the incident response.

Once the ER team members have been notified of the emergency they shall:

- Document action requirements on **Emergency Response Incident Action Log (HAZ-OHS-FOR-24)**.
- Set up a control centre, as required, which is contactable at all times.
- Not attempt to personally action each step as this will add significantly to the response time.
- For each action in the log, the ER Manager will contact the relevant personnel from the call-up lists, advise them of the circumstances, and request them to take the appropriate actions.
- Document on the **Emergency Response Incident Action Log (HAZ-OHS-FOR-24)** the names of key personnel and the times actions are taken.
- Provide guidance to any attending emergency services personnel if required.

As the details of the incident become clear the ER Team will liaise the ER Manager as required, with the best course of action for handling the emergency.

The ER controller should assist with the planned action for possible difficulties and develop site evacuation plans, alternative plans and assist with any additional resources to overcome these difficulties should they arise.

3.3. ER Team

The **Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)** will be completed by ER team members.

The following procedure will apply:

1. **ER team member** – the first company employee to receive the call will complete the **Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)**.
2. The ER team member shall advise the ER manager that an emergency response is in progress and which other members comprise the ER team.

3.4. ER Team at the incident scene

The primary role of the ER Team is to attend the scene, ensure that the incident has been rendered safe, does a formal handover with any attending emergency services personnel and contain any spill. It is normal procedure at emergencies for the Police to be responsible for overall control of the area surrounding the incident and the Fire Service to be responsible for rendering the incident safe.

The Fire Service will create a combat zone, often by physically cordoning off the area, and establish a command point at the edge of the zone. The Police will establish a command point outside this zone and nominate an officer in command of the scene. There are a range of other organisations who have personnel, skills and equipment which can be useful.

On Main Roads (Emergency Services are in attendance):

The ER Team shall:

- a. Locate the command post, introduce themselves to the officer in charge, ask to speak with the relevant Emergency Services Incident Controller & offer information or advice as appropriate.
- b. It is the role of the Emergency Services Incident Controller to render the incident safe for the ER Team to commence recovery/clean-up. The ER team shall ensure the incident has been rendered safe before any clean-up begins.
- c. If the scene has not been secured, then ask the Police Service to do so.
- d. Ensure traffic management is in attendance (if required).
- e. Liaise with the ER Manager to discuss details of the situation and outline a course of action to commence.

If the incident is at a rail yard:

Liaise with the freight controller's office upon arrival at the rail yard and they will have the details and location of the rolling stock which has been affected.

Role of the Environmental Scientist at the Scene

If it is required, and/or the type and size of the incident justifies it, an Environmental Scientist will be engaged to assess and document the environmental impact of the incident.

It is the role of the Environmental Scientist to:

- Ensure that the relevant Environmental Authority is advised of the incident, as appropriate.
- Liaise with all relevant authorities.
- Assess the potential environmental impact at the scene.
- Provide advice to the Emergency Controller and Emergency response team on methods of minimising the environmental contamination impact.
- Assist in providing advice with regard to licence provisions for any substances to be disposed of at a Company facility.
- Determine the requirements for remediation of the site, if required.
- Participate in the incident investigation; and,
- Prepare all documentation for the regulatory authority & refer to the Company Legal Department.

3.5. ER Staff Training Requirements

Training

Hazrad Australia's ER training encompasses numerous levels of in-house and external training requirements for all personnel involved. The training is described in **Section 7**.

Exercises

Emergency Exercises are required to keep these procedures up-to-date, and to ensure Hazrad Australia's emergency response capability is adequate. All staff are to be included in the exercises, with emphasis on those who have nominated responsibilities.

Emergency Exercises are to be initiated by the ER Manager at least once a year. The ER Manager is responsible for ensuring these emergency exercises are performed. A debrief directly after the exercise will occur and the results recorded on the *Emergency Response Incident Debriefing Form (HAZ-OHS-FOR-25)* (Refer to Appendix 6). Evaluation of the emergency exercises is to be reviewed at an annual ER operations meeting.

4. EMERGENCY RESPONSE DOCUMENTATION

4.1. Emergency Questionnaire

The *Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)* will be completed by the ER Team member taking the call (the ER Respondent). This person is then to take the following action:

4.2. Emergency Response Action Log

The ER Team member shall ensure that they have a completed a copy of the *Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)* and have obtained all relevant and critical details relating to the incident.

Upon notification of an emergency, the ER Team member shall commence recording all actions taken, using the *Emergency Response Incident Action Log (HAZ-OHS-FOR-24)*. These actions shall be time logged at all times. This log shall be referred to during the debriefing, to be conducted at the completion of the emergency response.

5. EMERGENCY RESPONSE EQUIPMENT

The ER Manager will maintain a supply of equipment solely for emergency response incidents.

- ER Team personnel kit.
- Emergency Response Store

Equipment and consumables will be reviewed weekly. An audit of equipment and consumables will be completed every six (6) months using Emergency Response Audit Checklist (HAZ-OHS-FOR-27).

5.1. Emergency Response Kit

The following equipment shall be carried by all ER Team personnel:

Basic First Aid Kit (to be kept in each company vehicle)

Personal Protective Equipment consisting of:

- Small fire extinguisher (to be kept in own vehicle)
- Disposable protective overalls
- Hi-visibility reversible vest with "Emergency Response Team"
- PVC gauntlets
- Ear plugs
- Broad brim hat
- Sunscreen
- Wet weather clothing

Uncontrolled copies of the following documents:

- Hazrad Australia Emergency Response Plan (HAERP)
- Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)
- Emergency Response Incident Action Log (HAZ-OHS-FOR-24)

5.2. Emergency Response Store List

Spill control requirements:	No. Required	Fire control:	No. Required
Attapulgate absorbent granules (bags)	20	9.0kg dry chemical fire extinguisher	2
Paper absorbent granules (bags)	40	Personal protective equipment:	
Peat absorbent (bags)	10	PVC gauntlets pairs	20
Carton of drain socks 100mm x 6m	10	Nitrile gloves boxes	10
Oil floating booms 6m x 150mm	4	Face shield	4
Drain covers (610mm x 610mm)	2	Box of dust masks (P2)	2
Pack of absorbent pads (100 per pack)	1	Goggles	x
200L Hazmat drum	6	Safety glasses (clear)	10
200um PE bags (240L capacity)	50	Safety glasses (tinted)	10
Tools:		Full face mask with multi cartridges	4
Shovels – square and round	2	Hi-visibility vests	4
Rake	2	Hardhats with sunshields	4
Broom	2	Wide brim hats	4
Mattock	1	Full set of cotton Hi-visibility clothing	4
Long handle squeegees	2	Disposable chemical resistant suit	10
Duct tape roll	2	Miscellaneous:	
Basic screwdriver set	1	Danger tape red/white tape (50m)	2
Basic shifter set (up to 450mm)	1	Caution tape yellow/black tape (50m)	2
Claw hammer	1	Garden hose (30m) and fittings	2
Hacksaw with spare blades	1	Bag of rags	20
Pipe wrench (75mm jaw opening)	1	Industrial strength soap dispenser	1
Tool bag	1	Water container (20L) with tap	1
Set of hole saws	1	Roll builders plastic	2
Electrical:		Tarp (6m x 4m)	2
5 kva generator	1	Type C First Aid kit	2
Work lights	4	Witches hats	6
Extension lead	4		
Intrinsically safe torches and batteries	4		
Air compressor 240volt x 40Ltr	1		

Note: this is the mandatory basic contents of the Emergency Response Store. It is the discretion of the Emergency Response Manager to provide any additional or relevant equipment.

5.3. Equipment Inspections, Testing and Maintenance

Equipment maintenance is carried out before and after deployment of equipment. ER staff are trained to perform routine maintenance checks on any equipment they use, including personal protective equipment and apparatus used within the field such as pumps, compressors, hoses and breathing apparatus.

Pump – Chemical	Flushed, cleaned and serviced after every use. Periodic hydrostatic and continually tested.
Chemical Hoses	Decontaminated after every use. To be hydrostatically/ continuity tested and stamped every 6 months.
BA Sets	Tested before and cleaned and after every use. Full service and certification every 3 years.
BA Air Cylinders	Certified every 3 years
Generator	Monthly check of fluids. RCD tested before every use. Extension leads to be tested/tagged as per Australian Standards.
Compressor	Serviced and maintained as per owner's manual. Fluid levels checked before every use.
Full & Half face Masks	Decontaminated and maintained after every wear. Face fit tests performed annually.
High Pressure Washer	Serviced and maintained as per owner's manual. Fluid levels checked before every use.
Long Line Filter Unit	Recording of hours used and following Manufacturer Standards for filter changes and servicing.
General PPE	Restocking of all PPE after every use. Monthly stock level checks.
All other equipment / consumables	Maintained and serviced as necessary. Weekly stock level checks.

6. EMERGENCY RESPONSE SPILL CONTROL AND CLEAN-UP

The objective of responding to an incident involving the release or potential release of hazardous materials is to prevent or reduce adverse effects to health, property and the environment by controlling the incidents impact. Control measures involve those processes, methods, procedures and techniques that are used to prevent or reduce the dispersion of a material or its by-products into the environment. These control measures include, neutralisation, construction of temporary dams, berms, or dykes, plugging leaking containers, applying absorbent materials and other methods.

There are several methods to contain or control a hazardous material leak, both defensively and offensively. Containing a leak to limit the spread of hazardous materials from its original container is one form of defensive containment, while restricting material to its original container is considered to be offensive containment, albeit placing personnel within close proximity to the hazardous substances.

It is to be assumed that the majority of chemical incidents requiring emergency response will be those applicable to packaged materials. That is, small containers, including glass, plastic and metal, 205-litre and other sized drums and Intermediate Bulk Containers or IBCs, both plastic and metal. Bulk liquid tankers including isotainers and rigid mounted tanks are not used regularly in most ER incidents. To address the variations of dangerous goods spills and their subsequent clean-ups, packaged and bulk loads will be addressed simultaneously.

Assess the situation and ensure the plan for containment/clean-up has been discussed with the ER Manager to ensure the method to be used is compatible with the situation, including use of and required tools, such as over-drums/packs, air monitoring meters and the correct personal protective equipment (PPE).

Assess the number of responders required, equipment required to undertake the clean-up, potential vapour releases with gas monitoring equipment, physical limitations, hazards faced in the hot zone.

Have applicable antidote kits available for any reactive/toxic chemicals. Ensure decontamination equipment and procedures are in place before entering the hot zone.

6.1. Clean-ups of individual Dangerous Goods Classes

For all materials, once the ER team is on the scene of an incident the following will apply:

- Have a thorough understanding of the material(s) to be cleaned up, through obtaining the correct SDS's, and liaison with the ER Manager and/or chemist.
- Check to see if any other incompatible materials were transported. If so, address each material in accordance with their classes and spill containment measures, while taking into account reaction of incompatible materials.
- Ensure the correct PPE is worn.

6.1.1. Class 2.1 – Flammable Gases:

- Before attempting to deal with a leaking gas, it is essential to accurately identify the leaking gas.
- Ensure all ignition sources are eliminated. Make certain any tools to be used are spark proof.
- Increase ventilation to assist with dispersion.
- Approach all containers which have been exposed to elevated temperatures cautiously as these maybe hot and or potentially explosive.
- If possible, vent the product from the leaking container in a safe location for onsite disposal.
- If not safe to dispose on site; stop the leak via temporary abatement or other suitable method.
- Or decant the contents of the leaking container into other evacuated suitable containers.

- Transport to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.2. Class 2.2 – Non-flammable Gases:

- Before attempting to deal with a leaking gas, it is essential to accurately identify the leaking gas.
- Persons not wearing positive pressure breathing apparatus and other personal protective equipment should not approach leaking unidentified cylinders. If it is not possible to identify the leaking gas, then it is recommended that it should be assumed to be toxic, flammable/pyrophoric and corrosive.
- Increase ventilation to assist with dispersion.
- If possible, vent the product from the leaking container in a safe location for onsite disposal.
- If not safe to dispose on site; stop the leak via temporary abatement or other suitable method.
- Or decant the contents of the leaking container into other evacuated suitable containers.
- Transport to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.3. Class 2.3 – Toxic Gases:

- Before attempting to deal with a leaking gas, it is essential to accurately identify the leaking gas.
- Persons not wearing positive pressure breathing apparatus and other personal protective equipment should not approach leaking cylinders.
- Warn other personnel and ensure evacuate the area.
- Prevent access to the area by roping off and warning notices.
- Make certain any tools to be used are spark proof.
- Approach all containers which have been exposed to elevated temperatures cautiously as these maybe hot and or potentially explosive.
- Increase ventilation to assist with dispersion.
- If possible, stop the leak via temporary abatement or other suitable method.
- Or decant the contents of the leaking container into other evacuated suitable containers.
- Transport to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.4. Class 3 – Flammable Liquids:

- Ensure all ignition sources are eliminated.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make certain any tools to be used are spark proof.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Approach all containers which have been exposed to elevated temperatures cautiously as these maybe hot and or potentially explosive.
- Contain and absorb spill with sand, earth, absorbent materials, inert materials or vermiculite.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.

- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.5. Class 4.1 & 4.2 – Flammable Solids

- Ensure all ignition sources are eliminated.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make sure any potential disturbance of spilled material is kept to a minimum.
- Make certain any tools to be used a spark proof.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Approach all containers cautiously as these maybe hot and or expansive from the fire or potentially explosive.
- Contain and absorb spill with sand, earth, absorbent materials, inert materials, or vermiculite.
- Sweep up and material and confirm material does not react to water, then dampen spilt area with water to prevent rising dust from and before sweeping.
- Place damaged containers into over-drums.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.6. Class 4.3 – Dangerous When Wet:

- Ensure no water sources, including moist air are present as materials react violently with water liberating extremely flammable gases and explosive peroxides.
- Wear correct PPE.
- Check area for any dangerous situations.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make sure any potential disturbance of spilled material is kept to a minimum.
- Make certain any tools to be used a spark proof.
- Avoid scattering material by not walking through spill.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Approach all containers cautiously as these maybe hot and or expansive from the fire or potentially explosive.
- Contain and absorb spill with dry sand or earth, non-combustible materials, or vermiculite.
- Place damaged containers into over-drums.
- Use DRY sand, graphite powder, dry sodium chloride-based extinguishers in case of a fire.
- If a fire occurs and is impossible to extinguish, withdraw and allow the fire to burn itself out.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.7. Class 5.1 – Oxidising Solids:

- Ensure all ignition sources are eliminated, including any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make certain any tools to be used are spark proof.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain and absorb spill with dry sand, inert material or vermiculite.
- Place damaged containers into over-drums.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.8. Class 5.2 – Organic Peroxide Liquid:

- Ensure all ignition sources are eliminated, including any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials.
- Materials may be reactive to temperature, so ensure all parts of the SDS are understood before any works commence.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make certain any tools to be used are spark proof.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain and absorb spill with dry sand, inert material or vermiculite.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.9. Class 6.1 – Toxic Liquids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.

- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.10. Class 6.1 – Toxic Solids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials.
- Place damaged containers into over-drums.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- If material does not react to water, dampen spilt area with water to prevent dusting before sweeping.
- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.11. Class 8 – Corrosive Liquids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials. Neutralising agents may also be used in conjunction with suitable absorbent materials if deemed suitable.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.12. Class 8 – Corrosive Solids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials. Neutralising agents may also be used in conjunction with suitable absorbent materials if deemed suitable.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.

- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.13. Class 9 – Miscellaneous Liquids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials. Neutralising agents may also be used in conjunction with suitable absorbent materials if deemed suitable.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area & remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.14. Class 9 – Miscellaneous Solids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials. Neutralising agents may also be used in conjunction with suitable absorbent materials if deemed suitable.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.2. Task Completion and Debrief

Once the incident clean-up has been completed, a debrief will be performed. All learning outcomes should be communicated to all members of the ER team. Debriefing will be considered desktop incident training. Provide relevant reports to the customer and to regulatory bodies as required.

7. ER PERSONNEL TRAINING

7.1. Inductions

- Customer specific site inductions (as required)
- WA Construction White Card

7.2. Licences

- Licence to perform high risk work – LF.

7.3. Nationally Recognised Training

- HLTF301B Apply First Aid (Senior First Aid)
- PMAOHS311B Lead Emergency Teams
- PMAPER205B Confined Space Entry
- PUAFIR201B Prevent Injury
- PUAFIR207B Operate Breathing Apparatus Open Circuit
- PUAFIR306B Render Hazardous Materials Incident Safe
- PUAFIR308B Employ Personal Protection at a Hazardous Materials Incident
- Dangerous Goods Transport Licence
- Working At Heights

7.4. ER Personnel Non-mandatory Training

- Drivers Licence – LR

Safe Work Method Statement (SWMS) Truck / Vehicle Operations



WORK ACTIVITY:	Semi Side Loader Truck / Vehicle Operations - Bulk DG			SWMS No:	HAZ-SWMS-034	DATE:	18/05/2026
PROJECT:	Liion Energy – Transport of Burnt Lithium Batteries			JOB NO:		REVISION:	0
BUSINESS NAME:	HazRad Australia - Wattleup	ABN:	27 626 763 782	ADDRESS:	13 Musson Road, Wattleup WA 6166		
BUSINESS CONTACT:	██████████	PHONE:	██████████				
WORKS SUPERVISOR:	██████████	PHONE:	██████████	SIGNATURE:	Supervisor to sign here	DATE:	18/04/2026

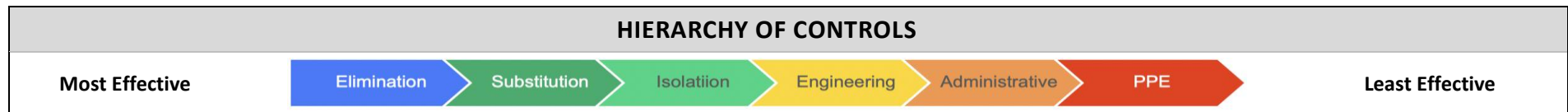
SWMS PREPARED BY: (Including consulted workgroups, workers' representatives, suppliers, hired workers, etc)	GUIDING RULES			
Name: ██████████ Sign: _____	1. Identify scope of work			
Name: ██████████ Sign: _____	2. Break job into steps.			
Name: Input Name Sign: _____	3. Identify hazards associated with each step			
	4. Assess the risk levels associated with each hazard, in each step given the existing controls.			
	5. Focus on risks & develop controls utilizing the hierarchy of control.			
	6. Determine the residual risk and obtain the appropriate authorisation.			
Person responsible for implementing & monitoring SWMS compliance:	Name: ██████████	Sign: _____	Date: 18/04/2026	
Person responsible for reviewing SWMS control measures:	Name: ██████████	Sign: _____	Date: 18/04/2026	
What measures are in place to ensure compliance with SWMS	☐ Task observations	☐ Inspections	☐ Audits	☐ Other _____

SELECT RELEVANT HIGH RISK CONSTRUCTION WORK ACTIVITY					
☐ Work involving structural alterations that require temporary support	☐ Work in, on or near chemical, fuel, or refrigerant lines	☒ Work in, on or near roads or railways in use by traffic			
☐ Work at a height above 2 meters	☐ Work in tunnels	☐ Work involving the use of explosives			
☐ Work involving excavation/trenching to a depth greater than 1.5m	☐ Work in, on or near pressurised gas distribution mains or piping	☐ Work over or adjacent to water where there is a risk of drowning			
☐ Work involving removal or disturbance of asbestos	☐ Work involving confined spaces	☐ Work involving tilt-up or precast concrete			
☐ Work involving diving	☐ Work in, on or near powered mobile plant	☐ Work in, on or near electrical installations or services			
☐ Work in, on or near telecommunications towers	☐ Work in, on or near artificial temperature extremes	☐ Work involving demolition			
☐ Work in, on or near contaminated or flammable atmospheres					

Safe Work Method Statement (SWMS) Truck / Vehicle Operations

Likelihood Description	
Almost Certain	Expected to occur in most circumstances. (More than once a year)
Likely	Will probably occur at some stage. (Approx. once a year)
Possible	Could occur at some stage. (Once every 1 – 5 years)
Unlikely	Not likely to occur but it is possible. (Once every 5 – 10 years)
Rare	Only in exceptional circumstances. (Less than once every 10 years)

Consequence Description			
	<i>Personnel</i>	<i>Environmental</i>	<i>Financial</i>
Catastrophic	Fatality	Permanent damage. Species and habitat destroyed.	Loss > \$250K Irreparable damage to product
Major	Permanent disability – LTI	Long term effect. External services required to manage.	Loss \$100K - \$250K Serious damage to product
Moderate	Medical treatment – RWI, MTI	Medium term effect. Contained without external assistance.	Loss \$25K - \$100K Repairable damage to product
Minor	Immediate return to work – FAI	Minor damage. Within site boundaries	Loss \$5K - \$25K Minor damage to product
Insignificant	No treatment required	Negligible damage.	No loss or damage to product



		CONSEQUENCE				
		1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
LIKELIHOOD	5 Almost certain	Moderate (5)	High (10)	Extreme (15)	Extreme (20)	Extreme (25)
	4 Likely	Low (4)	Moderate (8)	High (12)	Extreme (16)	Extreme (20)
	3 Possible	Low (3)	Moderate (6)	High (9)	High (12)	Extreme (15)
	2 Unlikely	Low (2)	Low (4)	Moderate (6)	Moderate (8)	High (10)
	1 Rare	Low (1)	Low (2)	Low (3)	Low (4)	Moderate (5)

RISK SCORING	Score	Action
	Extreme	Unacceptable risk. DO NOT PROCEED.
	High	Further action required to minimise risk before commencing work
	Moderate	Acceptable Control measures to minimise risk.
	Low	Acceptable No further action required

To calculate risk, you simply need to select one CONSEQUENCE & one LIKELIHOOD.
Multiply the corresponding consequence and likelihood numbers to calculate final risk result.

Safe Work Method Statement (SWMS)

Document Number: HAZ-F0092



NO.	JOB STEP <i>(Break the job into logical steps)</i>	HAZARDS IDENTIFIED <i>(During this step)</i>	INITIAL RISK RATING			CONTROL MEASURES <i>(To reduce the level of risk to an acceptable level)</i>	RESIDUAL RATING		
			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
1.	Planning & preparation	Lack of planning -potential injury, property damage &/or environmental incident	2	3	6 (M)	- Liaise with PCBU (DFES, Main Roads, LGIRS, DWER) and obtain as applicable: - Health and Safety rules - Prestart for all workers - Supervisory arrangements - Operational Lead (DFES) - Workers are appraised for required competencies; - Bulk DG Licencing - Verify Route selected is defined and presented to all involved in the convoy - Verify Route selected is passable under all condition with consideration given to vehicle size and capacity (are there low bridges, turning circle, load limits, etc) - Journey Management Plan (JMP – Rev 0 – Liion Energy) - Are all escorts available - Communication arrangements - PPE required - DG Class 9 - Eye Wash Kit - Chemical Resistant Gloves - Electric Torch - Respirator: Half Face - L/S Shirt, Pants, Steel Cap Boots - Exclusion Zones - Emergency Stopping Locations (x3) - Location 1: _____ - Location 2: _____ - Location 3: _____ - Injury reporting procedures - Hazard reporting procedures.	3	1	2 (L)
		Communications failure	3	3	9 (H)	- Ensure: - A procedure is developed for regular contact with people working remotely or in isolation, which outlines the frequency, nominated time, and method of contact appropriate for the work location and conditions - An immediate supervisor or manager is aware of travel itineraries, current locations & what tasks are being undertaken in the remote area(s) - Scheduled contact persons and Injury reporting procedures are developed and in place - Mobile & satellite phones and Emergency Position Indicating Radio Beacon (EPIRB) are fit for purpose, tested before departure & phones have spare, fully charged batteries and facilities for continuing charging - An emergency response procedure is developed & followed by the works depot - Establish and confirm communication channels are operable (eg UHF 40 Channel, Phone numbers, etc - Establish the communications protocols that will apply to all vehicles involved in the transit - Establish expected start time and expected completion time	3	1	3 (L)
2.	Training, Capabilities & Qualifications	Lack of training or the assessment of capability may lead to personal injury, property damage &/or environmental incident.	2	3	6 (M)	- All heavy vehicle operators must be licensed (HR & Bulk DG) and deemed competent on the make/model of heavy vehicle - Vehicle must be registered with the State Road and Traffic Authorities prior to use. - Ensure all relevant workers have undertaken training and/or received instruction in the use of the vehicle and control measures. Including: - Correct use of the vehicle in expected operation – side loader - Correct use of recovery equipment including selecting, fitting, use, care of and maintenance - What to do in the case of a crash or emergency - First aid training current - At least one person in the vehicle is knowledgeable and experienced in recovery operations - Use of supervision where required (e.g. new starters or new equipment) - All workers are trained in this SWMS - Reporting procedures for incidents - Understanding the causes and effects of driver fatigue. ⚠ Check workers are in fit condition to work i.e. no signs of fatigue, alcohol or drugs.	3	1	2 (L)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
3.	Assess Travel Conditions	Communication failure Lack of a clear assessment may lead to personal injury, property damage &/or environmental incident.	3	3	9 (H)	- Assess proposed travel conditions. Ensure: - Suitable weather conditions (check your state Government websites for road conditions & other travel info) - Consult weather forecasts and observe weather warnings - Pre-plan refuelling stops - Suitable ground / track conditions for operation of vehicle - Route within vehicle manufacturer's slope/gradient limits - Route within vehicle manufacturer's water fording limits.	3	1	3 (L)
4.	Prestart check	Lack of a clear assessment may lead to potential personal injury, property damage &/or environmental incident.	2	3	6 (M)	Complete <i>(Pre start Checklist in Safety Culture)</i> Inspect before use. Ensure: Check that vehicle is in a mechanically sound condition and operator's instructions are available No evidence of fluid leaks All required safety equipment is fitted and operational All safety guards are in place and undamaged All stored items in cabin and roof racks are secured Reversing beepers functioning Vehicle break-down equipment: High visibility/reflective gear suited for day/night combinations Wet weather gear Seatbelt present and in good condition Traffic cones / signs / reflectors Mirrors are present, functional and adjusted correctly Confirm Route is navigable Confirm all means communications are operable and all parties have the required details (ie #). Confirm all escorts have operable communication Confirm route is communicated to all parties in the convoy/transit Confirm driver fit for duty Do not use if any fault/damage/missing parts. Report immediately and tag out of service until repaired	2	1	2 (L)
5.	Vehicle Operation	Fatigue - Vehicle Accident	4	4	16 (E)	- Follow Driver Fatigue Management procedures - Ensure well rested before starting the trip - Avoid driving at night when a person normally sleeps - Share the driving with another person if possible - Stop for a 15 minute rest break every two hours - Where possible, do not drive more than 10 hours in any 24 hour period - Split trip into shorter continuous driving periods wherever possible.	4	2	8 (M)
		"DO NOT STOP" ZONES	4	4		- No Stopping; - Bridges or overpasses - Tunnels or underpasses - Densely populated / residential zones - Near fuel stations or hazardous facilities			
		Vehicle accident -Loss of control	4	4	16 (E)	- Only licensed drivers to drive vehicles - Observe road rules at all times - Wear seat belts at all times when driving - Remain attentive - Watch for possible hazards - Use mirrors often to monitor the activity around you	4	2	8 (M)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
						- Drive Smoothly – Be aware of the high centre of gravity of 4wd vehicles, Start and stop smoothly. Avoid sharp turns - Monitor vehicle constantly for any malfunctions that may affect vehicle performance - Watch for vehicles entering from side roads/tracks Give way to approaching trucks/road trains - Monitor/use UHF radio, to monitor for changes to road conditions & vehicle movements (generally channel 40) - Do not exceed weight capacity the vehicle - Do not – use mobile phone while driving. - Do not – adjust radio channels or volume while driving - Drive to the road conditions i.e. slow down when raining or on gravel roads. - Communication protocols - Adopt incident protocols with others in the convoy For Emergency / First Response (Driver/Escort ONLY if safe): - Do not approach to container unless directed by DFES			
		Container breach or sand suppression failure	4	3	12 (H)	- Pre-Defined Safe Stopping Locations - Minimum 2–3 pre-approved emergency stopping locations to be identified prior to mobilisation (e.g. industrial zones, wide road shoulders, laydown areas). - Locations to: - Be >50 m clear of public access where practicable - Avoid overhead structures and confined areas - Allow DFES appliance access - Locations to be mapped and communicated to all convoy personnel pre-start	4	2	8 (M)
		Pedestrian safety	3	3	9 (H)	- Ensure no persons in vicinity before and during start-up and operation of the vehicle - Travel at appropriate speed for conditions observing speed limits and warning signs - Avoid reversing wherever possible. - Drive to the road conditions i.e. slow down when raining or on gravel roads. - Communication protocols - Adopt incident protocols with others in the convoy	3	1	3 (L)
		Thermal runaway – re-ignition during transit – Burns, personnel injury	4	4	16 (E)	- Carry plenty of drinking water - Never drive through heavy smoke - Ensure headlights are on to remain visible to other vehicles. If trapped by fire: - Remain in the vehicle (leave vehicle running & lights on) - Tightly close windows and doors and vents - Lie low on the floor of the vehicle and cover up with any available materials such as floor mats or clothing - If possible park in a cleared area free of vegetation and protected by a structure e.g. bridge, large rocks etc. - Drive to the road conditions i.e. slow down when raining or on gravel roads. - Communication protocols - Adopt incident protocols with others in the convoy - Avoid the tops of hills - If time allows: - Clear vegetation leaves from under & around vehicle - Remove flammable equipment etc. fuel, gas bottles. - Wait for fire to pass before exiting vehicle.	4	2	8 (M)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
		Bogged vehicle	3	3	9 (H)	Partially deflate the vehicle's tyres not less than 20psi. <i>Deflating tyres increases the footprint of the tyre:</i> When tyres deflated ensure: - Avoid sharp turns - Do not exceed 50 kph - Reinflate (if possible) when conditions passed - Drive at a constant speed - limit gear changes - Sand, drive in existing tyre tracks if available - Drive in a straight line and avoid turning front wheels wherever possible (no sharp turns) - Do not use excessive wheel spin if vehicle becomes bogged – Start recovery immediately to avoid becoming bogged deeper.	3	1	3 (L)
		Weather & Wind Considerations	3	3	9 (H)	Mandatory weather check prior to departure (wind speed/direction, temperature) Wind direction relative to travel route (plume modelling) - High temperature increasing risk of re-ignition Control Measures: - Avoid transport during extreme heat or high wind events - If incident occurs: - Position vehicle upwind of plume where practicable - Establish exclusion zone downwind direction (minimum 50–100 m or as directed by DFES)	3	1	3 (L)
6.	Vehicle Recovery Operations	Hit by moving vehicle/objects	4	3	12 (H)	⚠ Always wear hi vis. vest when undertaking recovery operations. Using Snatch Strap - If practicable, dig in front of all 4 wheels, to give the vehicle a chance to pop up - Ensure snatch strap is rated for use for weights of vehicles to be pulled - Snatch strap is in good condition with no sign of damage. (Do not use if any signs of damage or tears) - Attach snatch strap to designated rated recovery points only - All shackles are rated (stamped with Working Load limit) - Do not attach to areas such as suspension, steering components, bumper bars, tow balls etc. - Use snatch strap as per instructions and training, following instructions for connection and safety straps - Ensure all persons not in vehicles are clear of area (at least 1.5 times the length of the unstretched strap & out of direct line of sight of the operation (if strap breaks attachments, shackles etc. become lethal missiles) - Drape a heavy bag or other dampening device (e.g. floor mat) over strap prior to operation Never join straps with a shackle - feed one end of snatch strap 1 through the eye of snatch strap 2. Then, feed the same eye of snatch strap 1 over the other end of snatch strap 2 and pull together Jack & pack under vehicle: - If practicable, dig in front of all 4 wheels, to give the vehicle a chance to pop up - If soil conditions permit, jack up the vehicle and put some form of hard material under the wheels such as branches, stones, leaves, grass or twigs - Lower vehicle and remove jack - Keep the wheels as straight as possible to give them traction - Selecting 2nd or 3rd gear in low range attempt to drive out, keep up momentum until you are well clear of the bog and once out, remember to re-inflate your tyres if deflated. Using winch - If a winch is available for use, ensure winch is rated for vehicle mass - Setup and operate as per manufacturer's instructions - Attach to designated rated recovery points only: - Do not attach to areas such as suspension, steering components, bumper bars, tow balls etc. - Ensure sufficient room around winch for operator - Clear persons from exclusion zone. ⚠ If using remote controls ensure operator is clear of exclusion zone at all times.	4	2	8 (M)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
						- If practicable, dig in front of all 4 wheels, to give the vehicle a chance to pop up - Ensure clutch is fully engaged before lift/tension, Do not disengage under load - Ensure smooth movement; do not apply jerky movements (increases load weight dramatically) - Where a winch cable is passed through pulley of snatch block & secured to fixed point, "winch pull" is approx. doubled - Ensure SWL is not exceeded for all components e.g. shackles, tree trunk protectors, snatch blocks etc. - If winched item is lodged release tension to point where lodged item in safe position - Pry free as required, re-apply tension, and resume winching - Maintain constant visual contact with cable and/or spotters. Ensure communication /directions followed.			
		Cuts, lacerations, Crush injuries	3	2	6 (M)	- When spooling-in, don't let cable slip through hands. Use hand-over-hand technique & wear leather gloves - Inspect condition of rope/cable during spooling to identify any defects - Don't put hands/ body parts close to drum spooling-in (pinch points exist between cable & drum housing) - Ensure cable is spooled tightly and evenly onto drum, avoid tangling	3	1	3 (L)
		Muscular stress / musculoskeletal disorder (MSD)	3	2	6 (M)	- Use mechanical lifting aids i.e. jacks whenever possible - Use two or more people for lifting & moving heavy / awkward equipment - Avoid awkward and sustained positions - Take Regular breaks - Never try to pull vehicle – Do not overstrain if pushing.	3	1	3 (L)
7.	Tyre repair/ change – Working outside of vehicle	Crush injuries	4	2	8 (M)	⚠ Always use appropriate and rated lift brace equipment and /or suitable SWL blocks / jacks. ⚠ Never place any part of your body under the vehicle. Before commencing tyre change / repair. Ensure: 1. Park the vehicle in a safe location on level ground 2. Parking brake is engaged 3. Operate the hazard warning lights 4. Engine is turned off & the start switch key is removed 5. Chock the wheels - front and back 6. Jack up vehicle to a suitable height off the ground to enable removal of the flat/ unserviceable tyre and fitting of the inflated spare tyre.	4	1	4 (L)
		Muscular stress / musculoskeletal disorder (MSD)	3	2	6 (M)	- Avoid awkward and sustained positions - Use two person lift for tyres wherever possible - Avoid any twisting, awkward positions and side-bending when holding tyre under weight - Do not use excessive force when removing wheel nuts – use extension bars if required.	3	1	3 (L)
		Struck by passing vehicle	4	4	16 (E)	⚠ Always wear hi vis. vest when undertaking recovery operations. Check constantly for changing hazards while always working and monitor work position. - Do not stand behind reversing vehicles - Allow sufficient distance from other vehicles and plant - Obey road safety/ warning signs/ traffic barriers - Be alert at all times. Listen for: - o Reverse beepers/ horns - o Calls from Truck Operators If confronted with a snake: - Do not approach a snake - Do not make sudden movements - Do not attack or attempt to harm snake - Back away slowly/ stay still to allow snake to escape - Treat every snake as if it is venomous.	4	2	8 (M)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
						Spider bites: - Always wear gloves when opening / moving any part of equipment and rolling up hoses - Visually check all equipment before picking up Ensure: - Adequate Bites/Stings First Aid kit is available. - Adequate communication method/ plan always in place			
8.	Vehicle Accident	Injury / Damage	4	4	16 (E)	In case of accident - Quickly make the immediate accident site safe by turning off any running vehicles and equipment, if safe to do so - Do not leave any accident site without stopping - If conditions are unsafe, evacuate to at least 50 metres - DO NOT RE ENTER the emergency zone - Place warning equipment, traffic cones signage etc. to warn oncoming traffic if accident presents a hazard - Encourage people to remain calm and to move off in an orderly manner - If required, call the appropriate Emergency Services (000). Mobile = Call 112 - Administer first aid if trained.	4	2	8 (M)
9.	Vehicle breakdown	Work adjacent to road & public safety / Injury	4	3	12 (H)	- If your vehicle has broken down stay with it, even on a little-used track, as a car is easier to spot than a single person - Your vehicle will also provide shelter, increasing your chances of survival - Wear hi vis./reflective vest if roadside - Position the vehicle safely as far off the road as possible and turn on hazard lights - Place warning equipment, traffic cones signage etc. to warn oncoming traffic if breakdown presents a hazard - Contact emergency services, office or supervisor.	4	1	4 (L)
10.	Refuelling	Diesel Spillage. Machine Interface. Fire	4	3	12 (H)	1. Shut off engine 2. Allow to cool before re-fueling if possible 3. Remove cap slowly 4. Use a fuel hose, pouring spout or funnel 5. Fill tank and wipe away excess 6. Ensure there is no over spill 7. Ensure cap has been secured and any vapour residue has been wiped away 8. Check for leaks. • DO NOT smoke during re-fuelling Ensure re-fueling is undertaken in well-ventilated area, clear of ignition sources - Ignition sources include cigarettes, matches/lighters, grinding, welding, power points, lighting, light switches, Material/Safety Data Sheets (M/SDS) for all fuel products on hand Follow manufacturer's manual/recommendations for re-fuelling Ensure fire extinguisher available and in date. Diesel: – Water, foam, dry chemical powder, CO ₂ Unleaded petrol: – Dry chemical powder, foam, CO ₂ . Never use water to extinguish an Unleaded Petrol fire.	4	1	4 (L)
		Exposure to hazardous chemicals / substances	3	3	9 (M)	- Avoid breathing vapours or contact with fuel - If clothing is splashed with fuel, change immediately - Do not siphon or swallow fuel as this can be fatal - Do not eat, drink or smoke during/after-handling fuel until hands are carefully washed - Shower and wash immediately after work - Wash clothes in separate wash from other clothes.	3	1	3 (L)
		Muscular stress / musculoskeletal disorder (MSD)	3	3	9 (M)	Where possible use pump to transfer fuel from container into tank. If using fuel container, and lifting into place: - Lift smoothly, do not jerk or throw load upwards - Avoid any twisting and side-bending during lift - Bend knees, not back. - Avoid awkward and sustained positions.	3	1	3 (L)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
						Adopt directions issued by Emergency Services and lead Escort - DFES			
		Environment incident	3	3	9 (M)	Ensure training in emergency response for chemical spill. Emergency response –fuel spill: 1. Stop the source of the spill or leak or release: a. If that is not possible & it is safe to do so - stop the spill or release from spreading 2. Turn off any ignition sources if safe to do so 3. Use gravel or other material to stop fuel entering drains/water courses 4. Clean up spill as required.	3	1	3 (L)
11.	Emergency Response	Emergency due to unstable load – changing conditions (eg heat generation, materials of combustion (shole, gases, etc), potential ingress in pressure inside the half height freight container	4	2	8 (M)	⚠ FOLLOW EMERGENCY RESPONSE PROTOCOLS CALL 000 IMMEDIATELY (If mobile phone out of range use 112) - Constant monitoring of items being transport (Visual) - If contact cannot be made by 2-way radio or phone and there is a grave and imminent danger to life situation, then the EPIRB should be deployed by the person at the remote location. When activated it will emit continuously a distinctive radio signal for up to 4 days on the international distress frequencies. The EPIRB must remain activated until rescue has been completed - Nominated contact person must ensure speedy notification of emergency services in the event of: - EPIRB or a Personal Location Beacon (PLB) being activated - Call for assistance from the remote area worker/crew. - Adopt ERG 138 - Notify escorts and base	4	1	4 (L)

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ON SITECHANGES / ADDITIONAL STEPS									
DATE	JOB STEP <i>(Break the job into logical steps)</i>	HAZARDS IDENTIFIED <i>(During this step)</i>	INITIAL RISK RATING			CONTROL MEASURES <i>(To reduce the level of risk to an acceptable level)</i>	RESIDUAL RISK		
			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk

PERMITS REQUIRED:	☐ N/A ☐ Hot Work ☐ Confined Space ☐ Work at Height ☐ Local Council ☐ Other / Client: _____			
SITE SPECIFIC HAZARDS:	☐ Electrical equipment ☐ Hot Work ☐ Noise and vibration ☐ Fuels, oils & chemicals	☐ Elevated levels ☐ Hazardous manual tasks ☐ Native vegetation & weeds ☐ Terrestrial fauna	☐ Slips, trips, and falls ☐ Outdoor work ☒ Air quality ☐ Waterways & soils	☒ Hazardous substances ☐ Remotely &/or isolated work ☒ Waste ☐ Cultural heritage

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This SWMS has been developed in consultation and cooperation with workers and relevant Persons Conducting Business or Undertaking (PCBU).
I have read the above SWMS and I understand its contents. I confirm that I have the skills and training, including relevant certification to conduct the task as described.
I agree to comply with safety requirements within this SWMS including risk control measures, safe work instructions and PPE described.

[illegible]

Safe Work Method Statement (SWMS)

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REMOTE DRIVING CHECKLIST

VEHICLE TYPE:			REGISTRATION NO.			DATE:		
ITEM	YES	NO	N/A	ITEM	YES	NO	N/A	
Daily logbook completed	☐	☐	☐	Operation manuals available	☐	☐	☐	
Operator licensed to operate	☐	☐	☐	Cabin				
Fluid Levels				Clean, free of clutter	☐	☐	☐	
Oils	☐	☐	☐	Ventilated / AC	☐	☐	☐	
Water	☐	☐	☐	Cargo barrier	☐	☐	☐	
Fuel	☐	☐	☐	Loose objects secured/removed	☐	☐	☐	
Fluid leaks				Exterior				
Water, oil	☐	☐	☐	Loads fully secured	☐	☐	☐	
Tyres / wheels / tracks				Vehicle Spares	☐	☐	☐	
2 Spare wheels	☐	☐	☐	Gauges / Lamps / Warning systems	☐	☐	☐	
Suitable type for conditions	☐	☐	☐	Lights – front / rear/ stop / turning / beacons	☐	☐	☐	
Have adequate tread depth	☐	☐	☐	Horns / reversing alarms	☐	☐	☐	
Correct and equal pressure	☐	☐	☐	Brakes – park / foot / emergency	☐	☐	☐	
Recovery Equipment				Fire extinguisher	☐	☐	☐	
Winch	☐	☐	☐	First Aid kit	☐	☐	☐	
Snatch straps	☐	☐	☐	Maps/GPS	☐	☐	☐	
Hi lift jack / exhaust jack	☐	☐	☐	Other?	☐	☐	☐	
Snatch block	☐	☐	☐	Other?	☐	☐	☐	
Rated shackles	☐	☐	☐	Other?	☐	☐	☐	
Long handled shovel	☐	☐	☐					
Communications								
Satellite phone	☐	☐	☐					
UHF Radio	☐	☐	☐					
Mobile phone charged	☐	☐	☐					
Other?	☐	☐	☐					
Repairs completed	☐	☐	☐					
Operators Name:								
Operators Signature:								

DANGEROUS GOODS SAFETY ACT 2004

Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Determination (No. 2) 2026

Transport of lithium batteries from Maddington and Wattleup to Mt Walton

1. Citation

This determination may be cited as Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Determination (No. 2) 2026.

2. Authority

This instrument comprises of a determination made under the *Dangerous Goods Safety Act 2004* and the *Dangerous Goods Safety (Road and Rail Transport of Non-explosives) 2007*. This instrument also authorises alternative packing and transport conditions for the carriage of damaged or defective lithium batteries in accordance with Special Provision 376 of the Australian Code for the Transport of Dangerous Goods by Road and Rail, Edition 7.9 (Australian Dangerous Goods Code).

3. Definitions

In this instrument:

“controlled venting” means a venting arrangement that permits gradual release of gases from the container headspace while minimising oxygen ingress to the encapsulated battery mass.

“damaged or defective batteries” means batteries liable to produce heat, fire, or emission of gas or vapour under normal conditions of carriage.

“Lithium batteries” means dangerous goods assigned to UN3090 Lithium metal batteries, UN3091 Lithium metal batteries contained in equipment or packed with equipment, UN3480 Lithium ion batteries, UN3481 Lithium ion batteries contained in equipment or packed with equipment, UN3551 Sodium ion batteries and UN3552 Sodium ion batteries contained in equipment or packed with equipment, as listed in the Australian Dangerous Goods Code.

“transport unit” means a vehicle or combination transporting batteries.

4. Purpose

The purpose of this instrument is to:

- a. enable the safe transport of lithium batteries
- b. manage the risk of thermal runaway, fire and gas release during transport
- c. specify enforceable control measures for containment, monitoring and emergency response
- d. facilitate the controlled transfer of batteries to Intractable Waste Disposal Facility, Mt Walton East for disposal or other approved location.

5. Application

This instrument applies to:

- a. Any Lithium batteries currently at 5 Burwash Place, Maddington and 13 Musson Road, Wattleup.
- b. transport undertaken to Intractable Waste Disposal Facility, Mt Walton East for disposal or other approved location.
- c. Hazrad Australia Pty Ltd (ABN 27 626 763 782), including all employees, agents and subcontractors engaged by that company in relation to activities covered by this instrument.

6. Variation to Australian Dangerous Goods Code

6.1 This instrument applies in lieu of compliance with Packing Instructions P911 and LP906.

6.2 Transport must be undertaken in accordance with Special Provision 376 and all conditions of this determination.

7. General duty

The person in control of the transport must ensure that all reasonably practicable measures are taken to prevent:

- a. thermal runaway
- b. fire propagation
- c. pressure build up within containers
- d. uncontrolled release of gases
- e. risk to people, property and the environment

8. Packaging, containment and venting conditions

8.1 Batteries must be transported in steel containers, skip bins, or equivalent non combustible containment units.

8.2 Each container must:

- a. fully contain the batteries and inert material
- b. encapsulate batteries in sand, vermiculite or equivalent inert material
- c. prevent battery movement during transport
- d. prevent battery to battery contact so far as reasonably practicable
- e. be covered but not gas tight
- f. incorporate controlled venting sufficient to prevent pressure build up
- g. maintain structural integrity during normal transport
- h. prevent loss of contents
- i. segregate different battery chemistries as much as reasonably practicable

8.3 Controlled venting must:

- a. allow gradual release of gases from container headspace
- b. prevent pressure accumulation
- c. be arranged so that venting does not create direct airflow through the encapsulated battery mass
- d. be positioned, where practicable, to reduce exposure of persons to released gases
- e. be kept clear of ignition sources

8.4 The following are prohibited:

- a. transport in sealed gas tight containers
- b. transport in open uncovered containers
- c. transport of loose batteries without inert encapsulation and restraint

8.5 Where containers are assessed as containing batteries that present an elevated risk of thermal runaway, fire, or gas generation, the transport must, so far as reasonably practicable, be conducted in accordance with the following:

- a. only one container of such high risk batteries is to be transported on a single transport unit
- b. additional containers must not be transported on the same vehicle as a high risk container unless it can be demonstrated that the additional containers are not high risk and the risks are effectively controlled
- c. the assessment of risk must take into account:
 - i. batteries condition (if known), including evidence of fire damage or instability
 - ii. likelihood of heat generation or gas release during transport
 - iii. effectiveness of packaging, encapsulation and venting arrangements
 - iv. potential consequences of fire or escalation during transport

9. Monitoring and detection

9.1 Prior to transport, each container must be inspected for:

- a. elevated temperature
- b. visible smoke, vapour or gas emission
- c. deformation or swelling
- d. damage to container or vent system

9.2 During transport:

- a. inspections must be carried out at scheduled intervals
- b. container surfaces and vent outlets must be monitored
- c. temperature must be monitored by suitable means
- d. any abnormal condition must trigger immediate response

9.3 At least one escort vehicle must carry thermal imaging capability.

9.4 The Department of Fire and Emergency Services (DFES) must be immediately notified if there is evidence of:

- a. escalating heat
- b. smoke or fire
- c. rapid or sustained gas release
- d. container deformation or structural failure
- e. any load arrangement that increases the consequence of escalation, including carriage of multiple high risk containers

10. Convoy and escort requirements

10.1 Transport must be conducted under convoy conditions.

10.2 The convoy must include:

- a. a lead escort vehicle
- b. a rear escort vehicle

10.3 Escort personnel must be trained in:

- a. lithium battery hazards
- b. emergency response procedures

10.4 The transport route must be pre approved and must, so far as reasonably practicable:

- a. avoid tunnels
- b. avoid high density urban areas
- c. include planned emergency pull over locations suitable for:
 - i. safe stopping of the transport unit
 - ii. establishment of an exclusion zone
 - iii. access by emergency services
- d. be documented and carried in the transport documentation

11. Emergency response

- 11.1 Each transport unit must carry or be supported by:
- a. sand or vermiculite
 - b. fire blankets suitable for lithium battery incidents
 - c. appropriate extinguishers
 - d. personal protective equipment
- 11.2 In the event of overheating, gas release, smoke or fire:
- a. the vehicle must stop immediately at a safe location
 - b. an exclusion zone must be established
 - c. personnel must remain upwind where practicable
 - d. DFES must be notified

12. Operational controls

- 12.1 Prior to transport, containers must be:
- a. assessed as stable
 - b. segregated and documented
- 12.2 During transport:
- a. vehicles must not be left unattended
 - b. communication must be maintained between convoy vehicles
 - c. inspections must be conducted at regular intervals
- 12.3 Drivers must be trained in lithium battery emergency response
- 12.4 Vent related conditions
- a. vent outlets must not be blocked or sealed
 - b. personnel must remain clear of vent outlets
 - c. external stabilisation using sand or blankets may be undertaken if safe

13. Documentation

- 13.1 The following must be carried:
- a. dangerous goods transport document
 - b. emergency response information
 - c. a copy of this instrument
 - d. inspection and monitoring records
 - e. route plan with identified stop locations
- 13.2 The transport document must include:
- a. UN number and proper shipping name
 - b. the statement "Transport in accordance with Special Provision 376"
 - c. reference to this instrument

14. Disposal

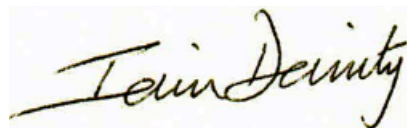
- Upon arrival at Intractable Waste Disposal Facility, Mt Walton East or other approved location:
- a. unloading must be controlled and supervised
 - b. each container is separated from every other container by a distance sufficient to ensure that a dangerous goods incident in one container cannot cause a dangerous goods incident in another container
 - c. containment measures must be maintained until disposal
 - d. batteries must not be unnecessarily handled

15. Compliance

Failure to comply with this instrument may constitute an offence under the Dangerous Goods Safety Act 2004.

16. Duration

This determination applies only to the transport of lithium batteries stored at 5 Burwash Place, Maddington on 12 April 2026 and ceases upon completion of disposal operations unless revoked earlier.



Iain Dainty | Director WorkSafe Petroleum Safety and Dangerous Goods
WorkSafe Petroleum Safety and Dangerous Goods Directorate
30 June 2026

*Chief Dangerous Goods Officer
Western Australia*

Appendix H: Emergency Response Team Contact Details

Emergency response undertaken by Hazrad Australia Pty Ltd, who are an approved emergency responder (AER001042) under the *Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Regulations 2007*.

Hazrad operate a 24 hour emergency response line, **08 9418 4200**

Emergency response for transport to Mt Walton to be coordinated by [REDACTED]
([REDACTED]@[hazrad.com.au](mailto: [REDACTED]@hazrad.com.au)) and [REDACTED] ([REDACTED]@[hazrad.com.au](mailto: [REDACTED]@hazrad.com.au)).



Department of Local Government,
Industry Regulation and Safety
Dangerous Goods Safety

Approved Emergency Responder No.: AER001042

Expiry date: 10 April 2031

CERTIFICATE OF APPROVAL

This is to certify that

Hazrad Australia Pty Ltd

34 Cocos Drive, Bibra Lake WA 6163

**Is an approved emergency responder for dangerous goods transport incidents
for the following dangerous goods:**

Classes/Divisions 2, 3, 4, 5, 6.1, 8 and 9

Marianne Amato

Marianne Amato | Acting Director WorkSafe Petroleum Safety and Dangerous Goods
WorkSafe Petroleum Safety and Dangerous Goods Directorate
13 April 2026
Chief Dangerous Goods Officer
Western Australia

PACKAGING & TRANSPORT PROFORMA
**DETAILS OF THE PACKAGING AND TRANSPORT MANAGEMENT OF WASTE
 PROPOSED FOR DISPOSAL AT THE INTRACTABLE WASTE DISPOSAL
 FACILITY**

NB: Notes to assist with the completion of the proforma are attached

DHW REFERENCE NUMBER:

1. CLIENT (WASTE OWNER) DETAILS

Client's Name: Department of Water and Environmental Regulation	
Address: Prime House, 8 Davidson Terrace, JOONDALUP WA 6027	
Tel: (08) [REDACTED]	Client Email: [REDACTED]@dwer.wa.gov.au
Client Contact: [REDACTED]	
Tel: (08) [REDACTED]	Client Email: [REDACTED]@dwer.wa.gov.au

2. PRESENT LOCATION OF WASTE

2.1 Address: 13 Musson Road, Wattleup WA 6166
2.2 Location at Site: South-west corner of yard
2.3 Contact Person at address: [REDACTED], [REDACTED]

3. DESCRIPTION OF WASTE

3.1 Type of Waste: Fire-affected batteries, containing a mix of UN 3090 LITHIUM METAL BATTERIES, UN 3480 LITHIUM ION BATTERIES, and undetermined reaction products.
3.2 Physical form of waste: Solid waste, mixed with sand and other building material, inside half-height shipping containers.
3.3 Intractable components of waste: Batteries have been involved in a fire and will reignite if removed from containers. When agitated, material reacts with moisture in air and produces toxic gases (e.g., hydrogen fluoride, phosphine).

4. DANGEROUS GOODS (OR HAZARDOUS/RADIOACTIVE WASTE) CLASSIFICATION

4.1 Technical Name: LITHIUM METAL BATTERIES & LITHIUM ION BATTERIES
4.2 Dangerous Goods Class: Class 9 - Miscellaneous Dangerous Goods
4.3 UN No.: UN 3090 & 3480
4.4 Packaging Group: None
4.5 Hazchem Code: 4W & 2Y
4.6 Other Waste Classification (e.g., Hazardous, Controlled, Radioactive): E120
4.7 Safety Data Sheets (SDSs) attached (Attachment A)? Yes ☒ No ☐

5. PACKAGING (CURRENT)

5.1 Packaging Type: 15 open-topped half-height shipping containers, fitted with lids and vents.
5.2 Package Dimensions: 6.06 x 2.44 x 1.4 m
5.3 Classification/Grade of material: Carbon steel
5.4 Sealing (e.g., lids, seals, straps, clamps, screws): Fitted with vented lid, strapped down and attached to trailer.
5.5 Safe Working Load (SWL): Unknown, typically > 20 tonne. Suitable for quantity of material packed within.
5.6 Photograph(s) of waste package(s) attached (Attachment B): Yes ☒ No ☐

6. COMPATIBILITY WITH IWDF PACKAGING ACCEPTANCE CRITERIA

6.1 Filled to contain no significant voids: Yes ☒ No ☐
Describe how this is achieved: Material is surrounded on all sides by sand inside shipping containers, effectively filling all voids.
6.2 Packaging material compatible with waste: Yes ☒ No ☐
6.3 Free of ruptures: Yes ☒ No ☐

6.4 Free of external contamination:	Yes ☒ No ☐
6.5 Weights within Safe Working Load (SWL) of container:	Yes ☒ No ☐
6.6 Labelled with the waste owner's name and appropriately sized identification number, on opposite sides of the waste package:	Yes ☒ No ☐
6.7 Packaging can be disposed of with the waste:	Yes ☒ No ☐
6.8 Waste & packaging is strong enough to be walked on, if required:	Yes ☒ No ☐
6.9 Packaging can contain all the wastes whatever the orientation of the package:	Yes ☒ No ☐
6.10 The packaging will remain intact and will allow no leakage (or unacceptable exposure) during normal transport and handling operations:	Yes ☒ No ☐
6.11 Supplier documentation (SWL and chemical compatibilities) attached (Attachment C):	Yes ☒ No ☐
6.12 Packaging will be undertaken in accordance with the current version of the ADG Code or Code for the Safe Transport of Radioactive Material: Relevant transport determination attached as part of Appendix G	Yes ☒ No ☐
If no, describe why:	
6.13 Does the current packaging satisfy IWDF packaging requirements? (all "Yes" answers above):	Yes ☒ No ☐
6.14 Verification/Inspection Records attached to confirm that packaging in compliance?	Yes ☒ No ☐

7. PROPOSED RE-PACKAGING (IF REQUIRED)

7.1 If existing packaging of the waste is not compliant (one or more "No" answers above), describe the proposed rectifying actions: N/A
7.2 Advise when packaging is to take place, so that it may be witnessed by DHW representatives: N/A

8. PROPOSED DOUBLE CONTAINMENT FOR TRANSPORT

8.1 Container Type: N/A, see Section 5 for packaging details.

8.2 Container dimensions: N/A, see Section 5 for packaging details.

8.3 Classification/Grade of material: N/A, see Section 5 for packaging details.

8.4 Sealing (e.g., lids, sealant, straps, clamps, screws): N/A, see Section 5 for packaging details.

8.5 If double containment is not proposed, provide reasons why: Double containment is not feasible as the waste is placed directly inside shipping containers, buried in sand. Goods are a mixture of material for which compliant packaging is not available. Containers will have vented lids fitted which are held down with straps to prevent spills during transport and in event of truck rollover.

9. COMPATIBILITY WITH IWDF TRANSPORT (DOUBLE CONTAINMENT) ACCEPTANCE CRITERIA9.1 Secondary (double) containment is proposed for transport Yes ☐ No ☒9.2 Double containment is in accordance with the ADG Code or Code for the Safe Transport of Radioactive Material **N/A** Yes ☐ No ☐

If no, describe why: As described in 8.5.

9.3 Secondary containers are clearly labelled: **N/A** Yes ☐ No ☐9.4 Secondary containers can contain all the wastes, whatever the orientation of the container **N/A** Yes ☐ No ☐9.5 Secondary containers will remain intact and will allow no leakage during normal transport and handling operations **N/A** Yes ☐ No ☐**9.6 Does the secondary containment satisfy IWDF requirements? (all "Yes" answers above)** Yes ☐ No ☐9.7 Verification/Inspection Records attached to confirm that containment complies (Attachment D)? **TBA** Yes ☐ No ☐**10. WASTE QUANTITY (SUBSEQUENT TO ANY RE-PACKAGING)**

10.1 Number of Waste Packages: 15

10.2 Numbering/Identification: Containers to be numbered 1-17.	
10.3 Waste Package Weight: Approx 15 T	Volume: 20.7 m ³
10.4 Accuracy of weighing devices used: Unknown	
10.5 Waste Package Dimensions: 6.06 x 2.44 x 1.4 m	
10.6 Total Consignment Weight: Approx 255 T	Volume: 351.92 m ³
10.7 Inventory listing (including waste package numbers, weights, volumes, and contents) attached (Attachment E)? TBA	Yes ☐ No ☐

11. LOADING FOR TRANSPORT

11.1 Date(s) and timing of proposed loading: Saturday 1 August 2026 (TBC)
11.2 Location of loading: 13 Musson Road, Wattleup WA 6166
11.3 Method of loading: Side loader to transfer container onto flatbed trailer

12. TRANSPORT

12.1 Date(s) of proposed transport: Saturday 1 August 2026 (TBC)	
12.2 Type of transport vehicle(s) to be used: B-double with flatbed trailer, traveling in convoy to carry all containers.	
12.3 Number of transport vehicle(s) per delivery: 5	
12.4 Describe Proposed Transport Route: Musson Rd -> Rockingham Rd -> Russell Rd -> Kwinana Fwy -> Roe Hwy -> Great Eastern Hwy -> Mt Walton Access Rd	
12.5 Transport Route map attached (Attachment F):	Yes ☒ No ☐
12.6 Licensed Transport Contractor in place?	Yes ☒ No ☐
12.7 Transport Contractor's Name: Hazrad Australia Pty Ltd	

Address: 34 Cocos Drive, Bibra Lake WA 6163	
Tel: 08 9418 4200	Email:
12.8 Transport and Emergency Response Procedure details attached (Attachment G)? Yes ☒ No ☐	
12.9 Emergency Response Team Contact details attached (Attachment H)? Yes ☒ No ☐	

13. COMPATIBILITY WITH IWDF TRANSPORT ACCEPTANCE CRITERIA

13.1 Transport will be undertaken in accordance with applicable legislation (e.g., the ADG Code, Controlled Waste Regulations)	Yes ☒ No ☐
If no, describe why (e.g. exemptions):	
13.2 Appropriate transport licences, certificates, or approvals in place?	Yes ☒ No ☐
Describe: Transport will be below placard load, so drivers do not require dangerous goods drivers licences but will be suitably trained. Hazrad holds controlled waste carrier licence T01102.	
13.3 Transport management, hazard controls and emergency response procedures are in place:	Yes ☒ No ☐
13.4 Transport will be undertaken in daylight hours:	Yes ☒ No ☐
If no, describe why:	
13.5 Transport vehicles will travel in convoy:	Yes ☒ No ☐
13.6 At least one vehicle will be fitted with a satellite telephone:	Yes ☒ No ☐
13.7 Transport documentation, including Chain of Custody, Certificate of Identification, verification/inventory records and controlled waste tracking form will be provided upon delivery:	Yes ☒ No ☐
13.7 Does the proposed transport satisfy IWDF requirements? (all "Yes" answers above)	Yes ☒ No ☐

14. OTHER DETAILS

Any additional comments:

15. ATTACHMENTS**Please ensure that the following are attached:**

A. Waste Safety Data Sheets (SDSs)	Yes ☒ No ☐
B. Photographs(s) of waste packages	Yes ☒ No ☐
C. Packaging Supplier details	Yes ☒ No ☐
D. Verification/Inspection Records	Yes ☒ No ☐
E. Inventory Records	Yes ☐ No ☐
F. Transport Route Map	Yes ☒ No ☐
G. Transport Procedures (including emergency response)	Yes ☒ No ☐
H. Emergency Response Team Contact Details	Yes ☒ No ☐

I certify that all sections of the PACKAGING AND TRANSPORT PROFORMA have been completed (unless not applicable). I understand that should any section of the proforma be incomplete (unless not applicable), no further consideration of the waste for disposal at the IWDF can be made by the Department of Housing and Works.

Completed by Authorised Client Representative:	
Name: 	Position: Dangerous Goods Officer
Signature: 	Date: 24/07/2026

Appendix A: Waste Safety Data Sheet

Safety Data

Battery LMP[®] **Pack** **Blue *Solutions***

Blue *Solutions*

Odet – Ergué Gabéric
29556 QUIMPER CEDEX 09
FRANCE

1- IDENTIFICATION

Product

Commercial Name: Battery LMP®
Description: Packs IT2: 27 / 37 kWh
Packs IT3: 42 / 63 kWh
Packs IT2-3: 42 kWh

Supplier:

Name: BLUE SOLUTIONS
Mail : Qualite.client.mobilite@blue-solutions.fr
Adresse: Odet - Ergué-Gabéric
29556 QUIMPER Cedex 9
France
Mobile (Customer service): +33 (0)6 23 75 14 07
Phone (Standard): +33 (0)2 98 66 78 00

2- IDENTIFICATION OF DANGERS

Physical and Chemical Hazard :

The battery is a manufactured product that does not pose any chemical or electrical hazards if its integrity is maintained.
In the event of a short circuit due to a piercing or a violent impact, there is a possibility of self-heat leading to a delayed ignition.

Health Hazards : Not applicable.

3- COMPONENT INFORMATION

Components	CAS Numbers	Proportion (% of mass)	Risk Symbole	Hazard Statement
Metallic Lithium	7439.93.2	< 10	 	H260/ H314/EUH014
Lithium Salt	90076-65-6	< 5	  	H290/ H301/ H311/ H314/H373/H412

4- FIRST AID

The Lithium Metal Polymer Battery is a dry battery that does not present any risk related to chemical exposure.

5- FIRE-FIGHTING MEASURES

Specific case: LMP battery damaged or lost its integrity during transport or handling operations.

1. If a battery is damaged, there is a risk of a short circuit and fire initiation.
Proceed immediately to the quarantine of the battery concerned:
 1. For a minimum of 24 hours
 2. In the open air and under supervision
 3. At 10 m from any building or storage
 4. Packaged in the original packaging
 5. Covered with a tarp to prevent water ingress.
 6. On a horizontal surface or on the BMS side in high point, never the other way around

7. The quarantine can be done in an empty container.
8. Blue Solutions must be contacted to diagnose the battery. Before transporting, we recommend freezing for a minimum of 12 hours before shipping in a refrigerated container (-20°C).

Specific risks in case of fire :

- The LMP battery contains Metallic lithium: Metal fire (class D), risk of exothermic reaction in case of direct contact of lithium metal with water.
- Release of toxic and corrosive fumes (see Chapter 10)
- Energetic fire with projection of incandescent particles and molten metals

An exothermic reaction is the direct contact between a Lithium metal battery and a water retention which is a violent and dangerous chemical reaction.

In special cases, the reaction can be so intense that they can lead to a rapid increase in temperature and an increase in flammable gas.

- Battery potentially charged up to:
 - 432 V for IT2 Pack 27 à 37 kWh
 - 422 V for IT3 Pack 42 kWh and IT2-3 Pack 42 kWh
 - 634 V for IT3 Pack 63 kWh

Fire Extinguishing Method:

In case of a battery fire:

To prevent a spread, it is possible to use water resources in the vicinity of the burning battery.

↳ To protect against the risks of projection, and exothermic reaction and electricity, the following precautions must be taken during the intervention:

- ✓ Cutting off energies
- ✓ In any case, the use of a water extinguisher is prohibited.
- ✓ The intervention with a water hose must be carried out:
 - more than 20 m from the burning battery
 - without direct jet on the battery, to avoid drowning the battery to avoid an exothermic reaction.
 - in the diffused jet position, to prevent the spread of fire.

In case of a fire around the battery:

Considering the electrical risk, the usual means can be used to extinguish the fire, but also to cool the battery.

Specific protective equipment for firefighting:

Wear self-contained breathing equipment and protective clothing to prevent contact with the respiratory tract, skin and eyes.

If incandescent particles come into contact during a fire, remove the particles by washing thoroughly with water. Consult a doctor or specialist.

6- MEASURES TO BE TAKEN IN THE EVENT OF ACCIDENTAL DISPERSAL

1. The battery does not contain any acids or solvents and cannot cause any liquid flow or ATEX.
2. The solids contained inside Lithium Metal Polymer batteries cannot be dispersed into the environment until the physical integrity of the Battery is impaired.
3. If physical integrity is impaired (shock, puncture, etc.), there is an immediate or delayed electrical and/or fire risk depending on the nature of the short circuit. Set up a security perimeter and contact BLUE SOLUTIONS. In case of emergency and in any case as soon as smoke appears, evacuate the area, and call the fire brigade specifying that it is a Lithium Metal Polymer battery.

7- HANDLING, STORAGE AND CONDITIONS OF USE

Handling :

1. Do not crush, puncture, deform.
2. Use the appropriate handling equipment.

3. Do not heat directly or weld on the ends.
4. Do not put on fire.

Packaging / Storage :

1. Keep batteries in their original packaging.
1. For wooden packaging, do not stack more than 4 wooden boxes.
2. For other packaging, do not stack beyond 5 pallets.
3. The outdoor T° range for transport and storage should be between -40 and +85°C. Except for damaged batteries, they must be stored and transported frozen at -20°C.
4. Batteries should be stored in a dedicated 2h00 fire compartment equipped with fire detection and smoke evacuation device. In all cases, do not store combustible liquids in the vicinity.

Usage :

1. Refer to BLUE SOLUTIONS instruction.

8- EXPOSURE CONTROL/PERSONAL PROTECTION

Not applicable for a manufactured product.

9- PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Rectangular steel housing with 2 connectors

Product	Energy	Tension	Dimension	Max Weight
IT2	27 / 37 kWh	432 V max	Length 1420 mm width 1066 mm height 266 mm	330 kg
IT3	42 kWh	422 V max	Length 1414 mm width 870 mm height 311 mm	320 kg
IT3	63 kWh	634 V max	Length 2010 mm width 870 mm height 311 mm	459 kg
IT2-3	42 kWh	422 V max	Length 1431 mm width 910 mm height 271 mm	337 kg

10- STABILITY AND REACTIVITY

Conditions to avoid:

Anyone who disassembles the Lithium Metal Polymer Battery is exposed to electrical hazards.

Decomposition Products:

Under normal conditions of use and up to temperatures of 150°C, the Lithium Metal Polymer battery is stable.

In case of fire:

- Smoke primarily contains CO₂, CO and NO as well as SO₂, HF, H₂, CH₄, C₃H₈, C₆H₆ in smaller quantities. In case of rain or watering, there is a possibility of phosphine PH₃ formation.
- Soot contains metallic oxides and hydroxides, particularly lithium.
- Fire extinguishing water may be basic (pH 11 to 12) and contain phosphorus, sulfur, fluorine, carbon, and metals such as iron, copper, aluminum, lithium. In this case, take appropriate measures should be taken depending on the site's configuration. Firefighting water must be disposed of in accordance with the regulations on hazardous waste treatment.
- Residues from combustion are sensitive to moisture. Under certain conditions of temperature and humidity, residues may heat up, release smoke, phosphine PH₃ and acetylene C₂H₂. Combustion residues must be destroyed by incineration. It is mandatory to wear an SCBA type respirator or mask with a P3R A2B2E2K2 filter during presence around the residues.

11- TOXICOLOGICAL INFORMATION

The Lithium Metal Polymer Battery is a manufactured product that does not present a toxicological risk as long as its integrity is maintained.

12- ECOLOGICAL INFORMATION

The Lithium Metal Polymer Battery pose no danger to the environment if it is used or disposed of as waste in an appropriate manner.

13- DISPOSAL CONSIDERATIONS

Lithium Metal Polymer Batteries must be disposed of in accordance with the regulations governing batteries and accumulators.

Blue Solutions offers a disposal route. Depending on the contractual provisions agreed upon, Lithium Metal Polymer Batteries can be either handed over to Blue Solutions for treatment or disposed of directly by the customer in strict compliance with the applicable regulations.

Any compacting operation of Lithium Metal Polymer batteries is prohibited due to the risk of fire.

14- TRANSPORT INFORMATION

International Conventions:

RID: no information

ADR:

- UN 3090
- Lithium Metal Batteries
- Class 9
- Code Tunnel: (E)

IMDG:

- UN 3090
- Lithium metal batteries
- Class 9
- Safety Data: (F-A, S-I)

IATA:

Transport by Passenger & Cargo Aircraft is Prohibited.

15- REGULATORY INFORMATION

Regulations for chemicals products and preparations do not apply to manufactured products such as Lithium Metal Polymer Batteries

16- OTHER INFORMATION

H260: In contact with water releases flammable gases which may ignite spontaneously

H314: Causes severe skin burns and eye damage

EUH014: Reacts violently with water

H290: May be corrosive to metals

H301: Toxic if swallowed

H311: Toxic in contact with skin

H373: May cause damage to organs through prolonged or repeated exposure

H412: Harmful to aquatic life with long lasting effects.

Appendix B: Photographs of waste packages





Appendix C: Packaging supplier details

Shipping containers provided by Hazard Australia Pty Ltd, sourced second-hand so original supplier is unknown.

Supplier details:

Hazard Australia Pty Ltd

34 Cocos Drive, Bibra Lake WA 6163

08 9418 4200

INTRACTABLE WASTE DISPOSAL FACILITY
MT WALTON EAST, WESTERN AUSTRALIA
WASTE INSPECTION RECORD
IWDF-FORM-53

Inspector: [REDACTED]	Date: 23/07/2026
Site Location: Maddington and Wattleup	
Waste Owner: DWER	
Site Contact: [REDACTED]	
Waste Description: Defective lithium metal batteries and fire-affected batteries	
Disposal Operation: 2026NRT01	

Phase of Inspection:		
☒ Preliminary assessment	☐ Post-packaging	☐ Arrival at IWDF
☐ Treatment/Packaging of waste	☐ Loading for transport	☐ Other (specify)

Issue/Criteria	Checked (tick)	Comments (Details regarding nature of waste, filling material, type of packaging, type of seal, specific packages that are not compliant, etc.)
Waste is solid, with no potential for separation of free liquid	Yes ☒ No ☐ n/a ☐	
The waste is double contained (primary and secondary packaging)	Yes ☐ No ☐ n/a ☒	See appropriate justification in WAC
The primary packaging:		
Is intact	Yes ☒ No ☐ n/a ☐	
Is sealed	Yes ☐ No ☐ n/a ☒	See reasons in WAC
Is free of external contamination	Yes ☒ No ☐ n/a ☐	
Is numbered	Yes ☐ No ☐ n/a ☒	Not yet but will be
Has a suitable dangerous goods label	Yes ☐ No ☐ n/a ☒	Not yet but will do
Each package is filled so as to contain no significant void space	Yes ☒ No ☐ n/a ☐	Will be topped up on site, if necessary, as transport weight cannot be exceeded
The secondary container:		
Is intact	Yes ☐ No ☐ n/a ☒	
Is sealed	Yes ☐ No ☐ n/a ☒	
Is free of external contamination	Yes ☐ No ☐ n/a ☒	
Is numbered	Yes ☐ No ☐ n/a ☒	
Has a suitable dangerous goods label	Yes ☐ No ☐ n/a ☒	
The waste has appropriate chain of custody documentation:		
Loading Checklist	Yes ☐ No ☐ n/a ☒	Prior to loading
Chain of Custody Record	Yes ☐ No ☐ n/a ☒	At loading
Certificate of Identification	Yes ☐ No ☐ n/a ☒	In OTP
Controlled Waste Tracking Form	Yes ☐ No ☐ n/a ☒	In OTP if necessary
Weight of waste packages given?	Yes ☐ No ☐ n/a ☒	In OTP
Photographs taken?	Yes ☒ No ☐ n/a ☐	Included in OTP
If radioactive material - has an assessment against the Safety Case been completed by the RSO?	Yes ☐ No ☐ n/a ☒	

Original to FMC Operations Manager (or IWDF Waste Delivery File if at IWDF site). Copy to DHW IWDF Project Manager.

6

ROUTE

The selected route from HazRad, 13 Musson Road, Wattleup; is described in Intractable Waste Disposal Facility, Mt Walton East below.

The route is illustrated in Figure 1.

Figure 1: Overall Route



6.1

ROUTE DIRECTIONS

Details of the selected route follow. The popularity and use of tools such as google maps and navigation aids does not justify the inclusion of detailed maps in this section. These directions include details for the Scheduled Inspections which can also be used for an emergency event.

Directions

1. From HazRad site in Wattleup, travel along Musson Rd in a northerly direction for approximately 70 m, and then turn Left to travel in a westerly direction for approximately 110 m to Rockingham Rd Route 1.
2. At Rockingham Rd (Route 1) turn Left and head in a southerly direction for approximately 400 m.
3. At the Intersection with Dalison Ave, execute a U-Turn to travel north along Rockingham Rd Route 1 for approximately 3 km.
4. At Russel Rd, turn Right to travel in an easterly direction along Russel Rd for approximately 6.9 km to the Kwinana Fwy.
5. At the Kwinana Fwy Route 2, take the on ramp to travel north on the Kwinana Fwy to travel approximately 7.8 km and take the ramp to Roe Hwy.
6. At the Roe Hwy Route 3, continue to travel in an easterly direction towards the Gt Eastern Hwy Route 94 for approximately 30.5 km.

7. At Gt Eastern Hwy Route 94 take the off ramp to merge with the Great Eastern Hwy Route 94 towards Kalgoorlie and travel in an easterly direction.
8. Continue on the Great Eastern Hwy Route 94 in an easterly direction and travel approximately 30 km.
9. After approximately 30 km, turn Right onto the Great Southern Hwy and then immediately turn Right to access the BP The Lakes Truck Stop. Then stop for a Scheduled Inspection, and rest break.
10. Upon completion of the Scheduled Inspection, continue with the exit ramp to the Great Eastern Hwy Route 94, and turn right to continue travel eastwards towards Kalgoorlie.
11. Continue along the Great Eastern Hwy Route 94 in an easterly direction for approximately 55 km, and then turn Right onto Yilgarn Ave to travel westerly. Proceed approximately 1 km and access the Northam Road Train Assembly Area. Then stop for a Scheduled Inspection, and rest break.
12. Upon completion of the Scheduled Inspection, exit the Northam Road Train Assembly Area, turn Left to travel easterly for approximately 1 km along Yilgarn Ave. Then turn right onto the Great Eastern Hwy Route 94 to travel easterly towards Kalgoorlie.
13. Continue along the Great Eastern Hwy Route 94 in an easterly direction for approximately 78 km, and use the left off ramp to access the Tammin Roadhouse. Then stop for a Scheduled Inspection, and rest break.
14. Upon completion of the Scheduled Inspection, exit the Tammin Roadhouse to turn Right onto Yorkrakine Rd and then join the Great Eastern Hwy Route 94 to travel in an easterly direction towards Kalgoorlie.
15. Continue on the Great Eastern Hwy Route 94 in an easterly direct for approximately 78 km and then turn Right to access the BP Truckstop Merredin. Then stop for a Scheduled Inspection, and rest break.
16. Upon completion of the Scheduled Inspection, exit the BP Truckstop Merredin and return to the Great Eastern Hwy Route 94, and travel in an easterly direction towards Kalgoorlie.
17. Continue on the Great Eastern Hwy Route 94 in an easterly direct for approximately 109 km and then veer left to access the BP Truckstop Southern Cross. Then stop for a Scheduled Inspection, and rest break.
18. Upon completion of the Scheduled Inspection, exit the BP Truckstop Southern Cross and rejoin the Great Eastern Hwy Route 94, and travel in an easterly direction towards Kalgoorlie.
19. Continue on the Great Eastern Hwy Route 94 in an easterly direction for approximately 96 km and then use the Left turn lane to take the Mt Walton Rd in Boorabbin with a sign indicating Sandy Ridge Facility.

20. Continue on the Mt Walton Rd in a northerly easterly direction for approximately 53 km and then veer Left to use a lay down area prior to the train line. Then stop for a Scheduled Inspection, and rest break.

21. Upon completion of the Scheduled Inspection, continue on the Mt Walton Rd in a northerly direction for approximately 50 km to arrive at the Intractable Waste Disposal Facility (IWDF) which is on the right.

6.2 ROUTE REVIEW

The selected route provides a direct route from HazRad Wattleup (ie 13 Musson Rd) to the IWDF at Mt Walton. The route has been developed in consultation with Main Roads, EPA and DWER. Consideration has been given to avoiding populated areas, and the capability of the roadway to accommodate the vehicle loads.

The scheduling for the execution of each transit will consider the potential traffic dynamics and the opening times for the IWDF to accept the consignment.

The transport will utilise escort vehicles positioned at the front (lead escort) and rear (trail escort) of the truck carrying the half-height shipping containers.

All transport vehicles and containers to have correct signage and UN numbers fitted, transport drivers will be suitably licenced as per the Dangerous Goods Legislation (Dangerous Goods Drivers Licence). The transit of the Fire Damaged LMP will be undertaken by CTI.

The selected route minimises public exposure, particularly to residential areas. A desk top review of the selected route has identified there are no vulnerable facilities and critical infrastructure in the immediate area of the selected route.

However, due to the nature of the load, the operation carries elevated risk and requires dedicated crews and appliances to monitor the convoy and provide immediate incident response capability. The Emergency Management provisions for this transit are outlined in Section 8 of this document.

7 SCHEDULED INSPECTIONS/MONITORING

Each transit will include scheduled inspections and monitoring of the consignment. The ongoing monitoring will be undertaken by all vehicle drivers to visually identify any changes to the consignment such as the generation of smoke/materials of combustion and flame.

The approximate frequency of the scheduled inspection will be 1 hour dependent on location, traffic, and weather conditions.

The locations of the scheduled inspections are:

- BP The Lakes Truck Stop;
- Northam Road Train Assembly Area;
- Tammin Roadhouse;

Appendix G: Transport Procedures. Contains JMP, generic company TERP, sample SWMS for initial transport of material, LGIRS determination.



HAZRAD AUSTRALIA PTY LIMITED
JOURNEY MANAGEMENT PLAN
&
EMERGENCY MANAGEMENT PLAN

FIRE DAMAGED LMP
HazRad WATTLEUP to INTRACTABLE WASTE
DISPOSAL FACILITY, Mt WALTON EAST

DATE: 23RD JULY 2026
REV: 0
FILE: J196 JMP W TO MW

DOCUMENT REVISION RECORD

Rev.	Date	Description	Prepared	Reviewed	Approved
A	16/07/2026	Draft Issued	ESSR	SR	SR
B	21/07/2026	Draft Issued with Route Directions & all B Doubles to Mt Walton	ESSR	SR	SR
C	21/7/2026	Included Communications and revised ERP and Scheduled Inspections	ESSR	SR	SR
D	22/7/2026	LMP added	ESSR	SR	SR
0	23/7/2026	Pocket Road Trains added and Issued	ESSR	SR	SR
Title: HAZRAD AUSTRALIA PTY LIMITED Journey Management Plan & Emergency Management Plan HazRad Wattleup to Intractable Waste Disposal Facility, Mt Walton East			QA Verified		

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ABBREVIATIONS

ADG	Australian Code for the Transport of Dangerous Goods by Road & Rail
App.	Appendix
Attach.	Attachment
CoP	Code of Practice
CTI	CTI Logistics Ltd
DFES	Department of Fire and Emergency Services
DG	Dangerous Good(s)
DGO	Dangerous Goods Officer
DWER	Department of Water and Environmental Regulation
Dwg	Drawing
EP	Emergency Plan
ESSR	ESSR Pty Ltd
HazRad	HazRad Australia Pty Ltd
IWDF	Intractable Waste Disposal Facility
LGIRS	Department of Local Government, Industry Regulation and Safety
Li	Lithium
LMP	Lithium Metal Phosphate
m	metres
NTC	National Transport Commission
PG	Packing Group
SDS	Safety Data Sheet
SOP	Standard Operating Procedure
t	tonne
UN NO.	United Nations number
WA	Western Australia
&	and
e.g.	exempli gratia meaning “for example”
i.e.	id est meaning “in other words”

1**SUMMARY**

This Journey Management Plan (JMP) provides details of the proposed journey route for the transport of Fire Damaged Lithium Metal Phosphate (LMP). The route commences at HazRad, 13 Musson Road, Wattleup, and terminates at the Intractable Waste Disposal Facility (IWDF), Mt Walton East.

The Fire Damaged LMP and other fire debris are located in half height freight containers with a covering of fire damaged fill, and potentially clean sand or vermiculite. The half height freight containers are covered with tarps. The materials of construction of the half-height shipping containers are steel and DFES have previously advised these are suitable

This document provides the details for the Journey Management Plan including cargo setup, convoy and management details, condition monitoring, route details, reporting, and emergency management

HazRad has commissioned ESSR Pty Ltd (ESSR), which is accredited by the Department of Local Government, Industry Regulation and Safety (LGIRS), to prepare this Journey Management Plan (JMP).

2**SCOPE**

The Fire Damaged LMP and other fire debris are located in half height freight containers with a covering of fire damaged fill, and potentially clean sand or vermiculite. The half height freight containers are covered with tarps that are primarily made from heavy-duty, UV-treated PVC-coated polyester fabric. The materials of construction of the half-height shipping containers are steel and DFES have previously advised these are suitable.

The dimensions for the half height freight containers are 6.05 m long, 2.43 m wide, and 1.250 m tall. The mass for each container will be approximately 15 t, with approximately 10 t of Dangerous Goods (DGs).

The tarps are waterproof, rot-proof, and tear-resistant to withstand harsh marine and inland weather conditions. Their material and design features are:

- **PVC-Coated Polyester:** Provides superior durability, blocking out rain and sun while remaining flexible enough to be pulled over bulky or over-height cargo.
- **Steel Wire/Rope Securing:** The tarps are secured to the container using a steel wire or custom rope that runs through eyelets in the tarp and loops over rings welded to the container's top rails.
- **Tensioning & Eyelets:** They are generally finished with welded seams, reinforced hemmed edges, and rust-resistant industrial eyelets to allow heavy-duty tensioning.

LGIRS has advised the Fire Damaged LMP are deemed to be Dangerous Goods (DGs) as per the requirements of the ADG Code Edition 7.9 and published by the

NTC. Further LGIRS advises the Fire Damaged LMP are assigned the UN No. designation as either:

- UN 3090 DG Division 9 materials with the proper shipping name “LITHIUM METAL BATTERIES (including lithium alloy batteries)”,
- UN 3091 DG Division 9 materials with the proper shipping name “LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT (including lithium alloy batteries)”,
- UN 3091 DG Division 9 materials with the proper shipping name “LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT (including lithium alloy batteries)”,
- UN 3480 DG Division 9 materials with the proper shipping name “LITHIUM ION BATTERIES (including lithium ion polymer batteries)”,
- UN 3481 DG Division 9 materials with the proper shipping name “LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT (including lithium ion polymer batteries)”,
- UN 3481 DG Division 9 materials with the proper shipping name “LITHIUM ION BATTERIES PACKED WITH EQUIPMENT (including lithium ion polymer batteries)”,
- UN3551 DG Division 9 materials with the proper shipping name “SODIUM ION BATTERIES with organic electrolyte”,
- UN3552 DG Division 9 materials with the proper shipping name “SODIUM ION BATTERIES CONTAINED IN EQUIPMENT”, and
- UN3552 DG Division 9 materials with the proper shipping name “SODIUM ION BATTERIES PACKED WITH EQUIPMENT, with organic electrolyte”.

All materials are classified by the ADG Code as Division 9 with no PG. The current basis of design is the materials is regarded as a solid, and stored loosely in half height freight containers.

There will be 17 x half height containers are be transported to the Intractable Waste Disposal Facility, Mt Walton East from HazRad, 13 Musson Road, Wattleup. These containers will be effectively transported to Mt Walton by articulated vehicles in the nominal configuration of B-Doubles and/or Pocket Road Train (hereafter referred to as B-Doubles). The B-Doubles will be configured to include side lifters to accommodate the unloading of the half height containers at IWDF. There is a limit of 10 containers for each transit and therefore there will be at least 2 convoys. The requirements for these convoys are provided in Section 4.

The B-Doubles will be configured to include side lifters to accommodate the unloading of the half height containers at IWDF.

Each convoy will include escorts and these details are provided in Section 5. Details for the selected route are provided in Section 6 and actions to be taken in the event of an unforeseen incident are provided in Section 8.

The selected route minimises public exposure, particularly to residential areas. However, due to the nature of the load, the operation carries elevated risk and requires dedicated crews and appliances to monitor the convoy and provide

immediate incident response capability. The Emergency Management provisions for this transit are outlined in Section 8 of this document.

3 OBJECTIVE

The objectives of this JMP are to:

- enable the safe transport of the Fire Damaged LMP;
- manage the risk of thermal runaway, fire and gas release during transport;
- specify enforceable control measures for containment, monitoring and emergency response; and
- facilitate the controlled transfer of batteries to IWDF at Mt Walton East for disposal.

The person in control of the transport must ensure that all reasonably practicable measures are taken to prevent:

- thermal runaway;
- fire propagation
- pressure build up within containers;
- uncontrolled release of gases; and
- risk to people, property and the environment.

4 GENERAL CONVOY EXECUTION

4.1 GENERAL

Compliance with following instructions is required.

- Batteries must be transported in steel containers, skip bins, or equivalent non combustible containment units.
- Each container must:
 - fully contain the batteries and inert material
 - encapsulate batteries in sand, vermiculite or equivalent inert material
 - prevent battery movement during transport
 - prevent battery to battery contact so far as reasonably practicable
 - be covered but not gas tight
 - incorporate controlled venting sufficient to prevent pressure build up
 - maintain structural integrity during normal transport
 - prevent loss of contents
 - segregate different battery chemistries as much as reasonably practicable
- Controlled venting must:
 - allow gradual release of gases from container headspace
 - prevent pressure accumulation
 - be arranged so that venting does not create direct airflow through the encapsulated battery mass
 - be positioned, where practicable, to reduce exposure of persons to released gases
 - be kept clear of ignition sources
- The following are prohibited:

- transport in sealed gas tight containers
- transport in open uncovered containers
- transport of loose batteries without inert encapsulation and restraint

4.2 MONITORING

Prior to transport, each container must be inspected for:

- elevated temperature
- visible smoke, vapour or gas emission
- deformation or swelling
- damage to container or vent system

During transport:

- inspections must be carried out at scheduled intervals (see Section 7)
- container surfaces and vent outlets must be monitored
- temperature must be monitored by suitable means
- any abnormal condition must trigger immediate response

4.3 OPERATIONAL

- Prior to transport, containers must be:
 - assessed as stable
 - segregated and documented
- During transport
 - vehicles must not be left unattended
 - communication must be maintained between convoy vehicles
 - inspections must be conducted at scheduled intervals (see Section 7)
- Drivers must be trained in lithium battery emergency response
- Vent related conditions
 - vent outlets must not be blocked or sealed
 - personnel must remain clear of vent outlets
 - external stabilisation using sand or blankets may be undertaken if safe

4.4 DOCUMENTATION

- The following must be carried:
 - dangerous goods transport document
 - emergency response information
 - a copy of this instrument
 - inspection and monitoring records
 - route plan with identified stop locations
- The transport document must include:
 - UN number and proper shipping name
 - the statement "Transport in accordance with Special Provision 376"
 - reference to Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Determination (No. 2) 2026.

4.5 CONVOY CONFIGURATION

Each convoy will consist of up to 5 x B-Double vehicles and will include escort vehicles (ie lead and rear) and support vehicles. Details of the escort vehicles are provided in Section 5. The support vehicles will provide personnel and equipment

monitor and take necessary actions in the event of an unforeseen incident. This will include vehicles for sand supply and other emergency management.

4.6 CONVOY COMMUNICATIONS

The convoy will utilise various communication tools for the execution of this transit, which includes:

- Verbal communications at start, conclusions, rest stops and scheduled inspections;
- Mobile phones if coverage is available;
- UHF Channel 27 UHF be used for intra-convoy communications; and
- UHF Channel 40 UHF which is the Australia-wide road safety channel, used mainly by trucks and heavy vehicles, and can be used to communicate with emergency services.

5 ESCORTS

The following requirements apply for escorts:

- Transport must be conducted under convoy conditions.
- The convoy must include:
 - a lead escort vehicle
 - a rear escort vehicle
- Escort personnel must be trained in:
 - lithium battery hazards
 - emergency response procedures
- The transport route must be pre approved and must, so far as reasonably practicable:
 - avoid tunnels
 - avoid high density urban areas
 - include planned emergency pull over locations suitable for:
 - ✚ safe stopping of the transport unit
 - ✚ establishment of an exclusion zone
 - ✚ access by emergency services
- be documented and carried in the transport documentation.

The convoy and escort vehicles will comprise:

- Lead Escort - Main Roads traffic escort),
- 5 x B-Doubles,
- Rear Escort - 1 x main roads approved escort vehicle, which will be followed by 2 x hazard response vehicles with 1 x vehicle with 10 x 20 kg bags of sand, a rake and shovel.

6

ROUTE

The selected route from HazRad, 13 Musson Road, Wattleup; to the IWDF is detailed below.

The route is illustrated in Figure 1.

Figure 1: Overall Route



6.1

ROUTE DIRECTIONS

Details of the selected route follow. The popularity and use of tools such as google maps and navigation aids does not justify the inclusion of detailed maps in this section. These directions include details for the Scheduled Inspections which can also be used for an emergency event.

Directions

1. From HazRad site in Wattleup, travel along Musson Rd in a northerly direction for approximately 70 m, and then turn Left to travel in a westerly direction for approximately 110 m to Rockingham Rd Route 1.
2. At Rockingham Rd (Route 1) turn Left and head in a southerly direction for approximately 400 m.
3. At the Intersection with Dalison Ave, execute a U-Turn to travel north along Rockingham Rd Route 1 for approximately 3 km.
4. At Russel Rd, turn Right to travel in an easterly direction along Russel Rd for approximately 6.9 km to the Kwinana Fwy.
5. At the Kwinana Fwy Route 2, take the on ramp to travel north on the Kwinana Fwy to travel approximately 7.8 km and take the ramp to Roe Hwy.
6. At the Roe Hwy Route 3, continue to travel in an easterly direction towards the Gt Eastern Hwy Route 94 for approximately 30.5 km.

7. At Gt Eastern Hwy Route 94 take the off ramp to merge with the Great Eastern Hwy Route 94 towards Kalgoorlie and travel in an easterly direction.
8. Continue on the Great Eastern Hwy Route 94 in an easterly direction and travel approximately 30 km.
9. After approximately 30 km, turn Right onto the Great Southern Hwy and then immediately turn Right to access the BP The Lakes Truck Stop. Then stop for a Scheduled Inspection, and rest break.
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13. Continue along the Great Eastern Hwy Route 94 in an easterly direction for approximately 78 km, and use the left off ramp to access the Tammin Roadhouse. Then stop for a Scheduled Inspection, and rest break.
14. Upon completion of the Scheduled Inspection, exit the Tammin Roadhouse to turn Right onto Yorkrakine Rd and then join the Great Eastern Hwy Route 94 to travel in an easterly direction towards Kalgoorlie.
15. Continue on the Great Eastern Hwy Route 94 in an easterly direction for approximately 78 km and then turn Right to access the BP Truckstop Merredin. Then stop for a Scheduled Inspection, and rest break.
16. Upon completion of the Scheduled Inspection, exit the BP Truckstop Merredin and return to the Great Eastern Hwy Route 94, and travel in an easterly direction towards Kalgoorlie.
17. Continue on the Great Eastern Hwy Route 94 in an easterly direction for approximately 109 km and then veer left to access the BP Truckstop Southern Cross. Then stop for a Scheduled Inspection, and rest break.
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19. Continue on the Great Eastern Hwy Route 94 in an easterly direction for approximately 96 km and then use the Left turn lane to take the Mt Walton Rd in Boorabbin with a sign indicating Sandy Ridge Facility.

20. Continue on the Mt Walton Rd in a northerly easterly direction for approximately 53 km and then veer Left to use a lay down area prior to the train line. Then stop for a Scheduled Inspection, and rest break.
21. Upon completion of the Scheduled Inspection, continue on the Mt Walton Rd in a northerly direction for approximately 50 km to arrive at the Intractable Waste Disposal Facility (IWDF) which is on the right.

6.2 ROUTE REVIEW

The selected route provides a direct route from HazRad Wattleup (ie 13 Musson Rd) to the IWDF at Mt Walton. The route has been developed in consultation with Main Roads, EPA and DWER. Consideration has been given to avoiding populated areas, and the capability of the roadway to accommodate the vehicle loads.

The scheduling for the execution of each transit will consider the potential traffic dynamics and the opening times for the IWDF to accept the consignment.

The transport will utilise escort vehicles positioned at the front (lead escort) and rear (trail escort) of the truck carrying the half-height shipping containers.

All transport vehicles and containers to have correct signage and UN numbers fitted, transport drivers will be suitably licenced as per the Dangerous Goods Legislation (Dangerous Goods Drivers Licence). The transit of the Fire Damaged LMP will be undertaken by CTI.

The selected route minimises public exposure, particularly to residential areas. A desk top review of the selected route has identified there are no vulnerable facilities and critical infrastructure in the immediate area of the selected route.

However, due to the nature of the load, the operation carries elevated risk and requires dedicated crews and appliances to monitor the convoy and provide immediate incident response capability. The Emergency Management provisions for this transit are outlined in Section 8 of this document.

7 SCHEDULED INSPECTIONS/MONITORING

Each transit will include scheduled inspections and monitoring of the consignment. The ongoing monitoring will be undertaken by all vehicle drivers to visually identify any changes to the consignment such as the generation of smoke/materials of combustion and flame.

The approximate frequency of the scheduled inspection will be 1 hour dependent on location, traffic, and weather conditions.

The locations of the scheduled inspections are:

- BP The Lakes Truck Stop;
- Northam Road Train Assembly Area;
- Tammin Roadhouse;

- BP Truck Stop Merredin;
- BP Truck Stop Southern Cross; and
- Prior to the train line on the Mt Walton access road.

The inspection equipment that will be used at the scheduled inspections will augment the visual inspections, and includes:

- Thermal Imaging (FLIR), and
- Gas Detection (Multirae).

The HazRad safety culture software will be used to document and photograph inspections.

If the scheduled inspection and/or ongoing monitoring identifies an elevated result, consultation will be immediately convened with HazRad, DFES and the DGO to determine the applicable and agreed way forward. This consultation will occur on-site, and if necessary, by phone. The results and agreed outcomes will be documented by the HazRad safety culture software.

8 EMERGENCY RESPONSE PLAN

The fundamental principals for managing scenarios of unwanted events are outlined below.

- Each transport unit must carry or be supported by:
 - sand or vermiculite
 - fire blankets suitable for lithium battery incidents
 - appropriate extinguishers
 - personal protective equipment
- In the event of overheating, gas release, smoke or fire:
 - the vehicle must stop immediately at a safe location
 - an exclusion zone must be established
 - personnel must remain upwind where practicable
 - DFES must be notified
- The Department of Fire and Emergency Services (DFES) must be immediately notified if there is evidence of:
 - escalating heat
 - smoke or fire
 - rapid or sustained gas release
 - container deformation or structural failure
 - any load arrangement that increases the consequence of escalation, including carriage of multiple high risk containers

8.1 FIRE/INCIDENT DURING TRANSPORT

In the event of a fire or incident involving the vehicle or load (Fire Damaged LMP, Division 9, UN 3090 and/or UN 3480) during transportation:

- HazRad Australia and other state agency vehicles to be in direct contact via channel 40 UHF with alternate channel 27 UHF to be used for intra-convoy communications.

- Escort vehicles to visually assess the shipping containers while being transport for any visual signs of emissions where reasonable practical.
- In the event of a visual discharge, immediately notify the convoy via radio that there is a potential release and seek advice from the DFES team leader.
- The truck driver must stop the vehicle safely and as soon as practicable in a location that minimises risk to the public, other traffic, and property. Activate hazard lights and emergency beacons.
- The lead escort will manage traffic ahead and warn oncoming vehicles. The trail escort will secure the rear, block following traffic, and assist with initial containment where safe to do so.
- In the event of a confirmed fire or chemical release within the container, DFES escort team leader is to advise if truck is to be decoupled from the trailer to prevent any movement of fire from the trailer.
- DFES to direct the HazRad transport provider CTI regarding relocation of prime mover away from the trailer. HazRad will defer to DFES for direction of the now isolated trailer. Lithium ion / Lithium Metal battery fires can involve a secondary thermal runaway, flammable gas release, and re-ignition. For small, accessible fires, use dry sand, Class D extinguishers, or approved dry chemical agents (refer to Emergency Response Guide 138). HazRad staff and contractor will withdraw to a safe distance and allow DFES to respond. DFES appliances accompanying the convoy are equipped for initial response.
- Maintain a minimum exclusion zone of 50 m (or as directed by DFES) and prevent public or unauthorised access.
- Notify HazRad and ESSR Emergency Response Shift Manager immediately via the pre-arranged emergency contact.
- All personnel must wear appropriate PPE

The pre-positioned escort vehicles and support appliances provide the direct incident response capability required by this JMP. This Emergency Response Plan supplements the existing HazRad end point site Emergency Plan and any applicable Safety Data Sheet requirement noting that these are fire damaged batteries and a SDS may not be relevant



Dangerous Goods Emergency Response Plan (HAERP)



REVISION HISTORY

The original and subsequent revisions are to be approved.

Rev	Date	Description of change	Author	Approved
1	17/05/2021	Implemented		
2	08/05/2024	Add DG Class 2.1, 2.2 & 2.3 under section 6.1		
3	23/03/2026	Disposal facilities		

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1. INTRODUCTION

This plan has been developed to ensure there is minimal impact from incidents involving external customer products to the community, the public, environment and property. It is designed to minimise the adverse impact of transport and storage incidents involving customer products.

1.1. Purpose and Scope

It is Hazrad Australia's company policy to safeguard the wellbeing of employees, contractors, customers, the public and environment, as well as to protect and enhance the commercial performance and value of the company. This document outlines Hazrad Australia's *dangerous goods emergency response plan (HAERP)*, and as such sets out guidelines for the management of an emergency or major incident within transport, storage and handling operations. This document is limited in scope to the coverage of Western Australian specific geographic boundaries.

The purpose of the plan is to define a system that provides resources and methodology for controlling product emergencies that have the potential for harming people, property, or the environment. It is principally designed to cater for responding to spills for dangerous goods transporters throughout Western Australia.

The HAERP is a professionally coordinated system of response to transport and other incidents enabling efficient and effective use of *Hazrad Australia's* resources to reduce the risk to transporters of dangerous goods, our employees, the public and to the environment.

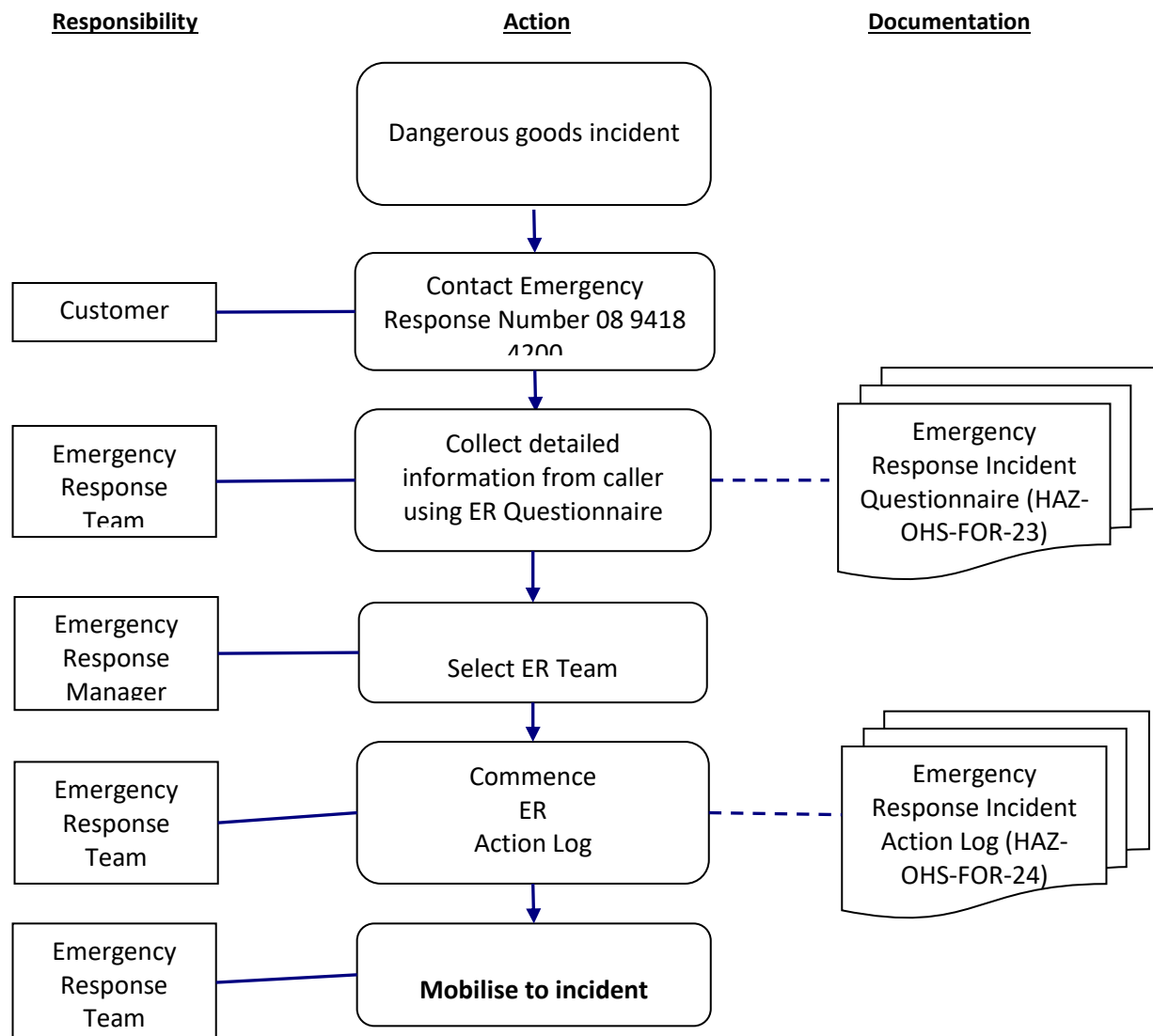
This plan shall provide training so that a high level of preparedness can be continually maintained and also provide a basis for updating and reviewing emergency procedures.

This plan shall be communicated to all staff, appropriate contractors, carriers (as engaged by Hazrad Australia), and statutory authorities.

1.2. Definitions

An emergency for the purposes of this plan, is defined as a hazardous situation (or a threat of a hazardous situation) which could require action to control, correct and return the identified situation to a safe condition and could also require timely action to protect people, property and the environment from harm.

1.3. Emergency Response – Flowchart



1.4. Responsibilities

1.4.1. Hazrad Australia

To ensure that all responsibilities are clear and implemented according to the HAERP.

1.4.2. Emergency Response (ER) Manager

- Awareness of plans; To ensure all staff are familiar with the emergency procedures found in this manual and are aware of the role they are expected to play.
- Implementation of plans; delegating to the ER controller, deciding the appropriate response to an emergency.
- Reviewing of document and emergency plans; The ER Manager is responsible for reviewing these plans annually and after exercises have been conducted.

The ER Manager must ensure the contact list is updated if changes occur. This will include any changes to any contractor named within the HAERP.

2. CONTACT REGISTERS

2.1. Emergency Response Resources Register

This list will be documented on Emergency Response Resources Register (HAZ-OHS-FOR-26).

At regular intervals the contact lists will be reviewed (and re-issued as required) by the ER Manager.

An audit of all contacts listed on Emergency Response Resources Register (HAZ-OHS-FOR-26) at least on an annual basis.

2.1.1. ER Team Personnel

The ER team is responsible for responding to the emergencies it has been assigned. In particular the team is responsible for:

- Addressing the direct incident
- Assessing of the emergency
- Local initial control of the emergency
- Local liaison with external authorities during an emergency
- Implementation of recovery, review measures and procedures
- Advising the ER manager
- Maintaining response equipment and appropriate stocks of materials and reagents

2.1.2. Subcontractors

Please refer to Emergency Response Resources Register (HAZ-OHS-FOR-26)

Hazrad works closely with Solo Resource Recovery and as such has access to vacuum tankers and Industrial Solutions (IS) equipment including heavy vacuum equipment.

Hazrad also works closely with Daynite Towing and has access to their extensive towing services. Additionally, Daynite also has a dedicated emergency response team, personnel and equipment.

Hazrad also has strong working relationships with solid waste disposal company West Tip Waste Control to provide earth moving plant, earth moving semi-tippers and bin services.

Waste Equipment Solutions provides Hazrad Australia with sweepers, gulley suckers, Bobcat excavators and bin services.

Global Spill Control provides spill control, safety equipment, absorbents and PPE locally. Global Spill Control has given Hazrad an assurance to provide a comprehensive and dedicated 24/7/365 service should they be required.

Environex International supplies supply reagents for neutralisation and immobilisation.

Jag Traffic supplies essential traffic management services for incidents on roads.

2.1.1. Physical Resources

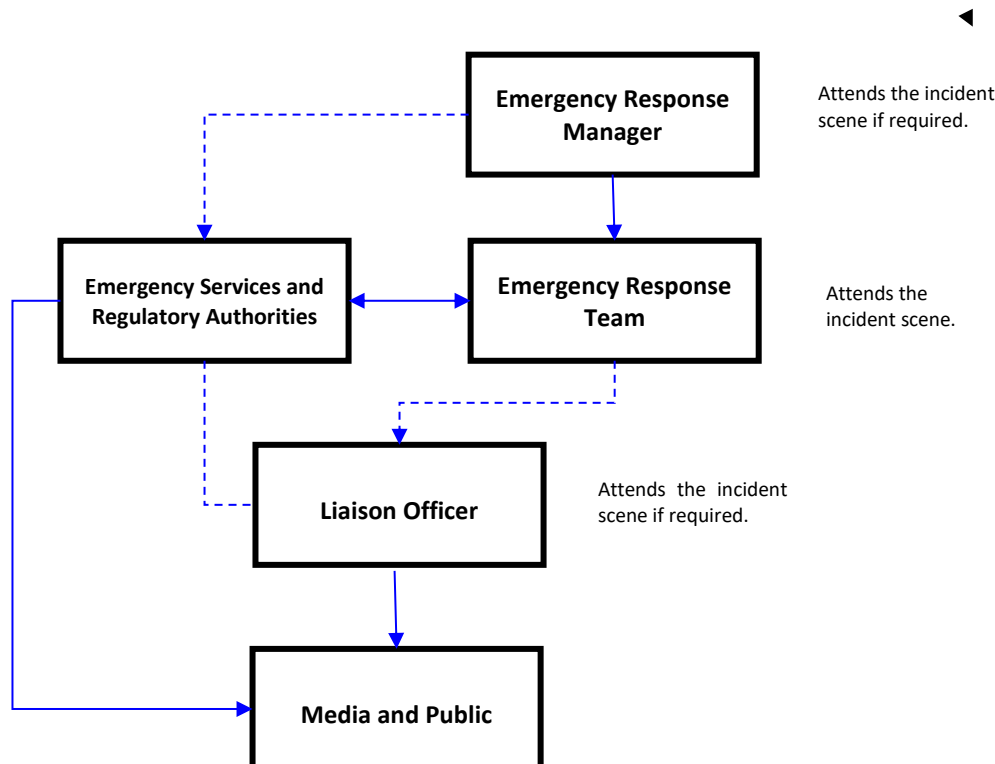
Hazrad Australia stocks a substantial quantity of PPE, spill control equipment, absorbents and other spill containment material items.

2.2. Safety Data Sheets

Our personnel have significant experience in handling a large variety of materials. If required, Safety Data Sheets will be accessed via the internet or directly supplied via clients or manufacturers. Additionally, transport information shall also be accessed through the Australian Emergency Response Guidebook (2018).

3. ROLES AND RESPONSIBILITIES

3.1. Role of Emergency Response Team



During any external emergency the lines of reporting and responsibility will be clearly defined from the beginning. This will be defined by the emergency response manager as above. The flowchart provides an overview of how the different respondents to the emergency will play their role.

The ER manager shall assist the ER team and be the non-operative link between the incident scene personnel and other personnel external to the scene as required.

At the scene of the incident the ER team will work under the direction of the ER Manager. Regular liaison with any attending emergency services groups is a key component to the ER team's activities.

Members of the ER team will consist of Hazrad Australia and Thuroona Services personnel who will liaise with the ER Manager at all times.

The media liaison officer will be the General Manager or a nominated representative.

3.2. ER Manager

ER team members will ensure the **Emergency Response Incident Action Log (HAZ-OHS-FOR-24)** is updated in a timely manner and then completed upon completion of the incident response.

Once the ER team members have been notified of the emergency they shall:

- Document action requirements on **Emergency Response Incident Action Log (HAZ-OHS-FOR-24)**.
- Set up a control centre, as required, which is contactable at all times.
- Not attempt to personally action each step as this will add significantly to the response time.
- For each action in the log, the ER Manager will contact the relevant personnel from the call-up lists, advise them of the circumstances, and request them to take the appropriate actions.
- Document on the **Emergency Response Incident Action Log (HAZ-OHS-FOR-24)** the names of key personnel and the times actions are taken.
- Provide guidance to any attending emergency services personnel if required.

As the details of the incident become clear the ER Team will liaise the ER Manager as required, with the best course of action for handling the emergency.

The ER controller should assist with the planned action for possible difficulties and develop site evacuation plans, alternative plans and assist with any additional resources to overcome these difficulties should they arise.

3.3. ER Team

The **Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)** will be completed by ER team members.

The following procedure will apply:

1. **ER team member** – the first company employee to receive the call will complete the **Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)**.
2. The ER team member shall advise the ER manager that an emergency response is in progress and which other members comprise the ER team.

3.4. ER Team at the incident scene

The primary role of the ER Team is to attend the scene, ensure that the incident has been rendered safe, does a formal handover with any attending emergency services personnel and contain any spill. It is normal procedure at emergencies for the Police to be responsible for overall control of the area surrounding the incident and the Fire Service to be responsible for rendering the incident safe.

The Fire Service will create a combat zone, often by physically cordoning off the area, and establish a command point at the edge of the zone. The Police will establish a command point outside this zone and nominate an officer in command of the scene. There are a range of other organisations who have personnel, skills and equipment which can be useful.

On Main Roads (Emergency Services are in attendance):

The ER Team shall:

- a. Locate the command post, introduce themselves to the officer in charge, ask to speak with the relevant Emergency Services Incident Controller & offer information or advice as appropriate.
- b. It is the role of the Emergency Services Incident Controller to render the incident safe for the ER Team to commence recovery/clean-up. The ER team shall ensure the incident has been rendered safe before any clean-up begins.
- c. If the scene has not been secured, then ask the Police Service to do so.
- d. Ensure traffic management is in attendance (if required).
- e. Liaise with the ER Manager to discuss details of the situation and outline a course of action to commence.

If the incident is at a rail yard:

Liaise with the freight controller's office upon arrival at the rail yard and they will have the details and location of the rolling stock which has been affected.

Role of the Environmental Scientist at the Scene

If it is required, and/or the type and size of the incident justifies it, an Environmental Scientist will be engaged to assess and document the environmental impact of the incident.

It is the role of the Environmental Scientist to:

- Ensure that the relevant Environmental Authority is advised of the incident, as appropriate.
- Liaise with all relevant authorities.
- Assess the potential environmental impact at the scene.
- Provide advice to the Emergency Controller and Emergency response team on methods of minimising the environmental contamination impact.
- Assist in providing advice with regard to licence provisions for any substances to be disposed of at a Company facility.
- Determine the requirements for remediation of the site, if required.
- Participate in the incident investigation; and,
- Prepare all documentation for the regulatory authority & refer to the Company Legal Department.

3.5. ER Staff Training Requirements

Training

Hazrad Australia's ER training encompasses numerous levels of in-house and external training requirements for all personnel involved. The training is described in **Section 7**.

Exercises

Emergency Exercises are required to keep these procedures up-to-date, and to ensure Hazrad Australia's emergency response capability is adequate. All staff are to be included in the exercises, with emphasis on those who have nominated responsibilities.

Emergency Exercises are to be initiated by the ER Manager at least once a year. The ER Manager is responsible for ensuring these emergency exercises are performed. A debrief directly after the exercise will occur and the results recorded on the *Emergency Response Incident Debriefing Form (HAZ-OHS-FOR-25)* (Refer to Appendix 6). Evaluation of the emergency exercises is to be reviewed at an annual ER operations meeting.

4. EMERGENCY RESPONSE DOCUMENTATION

4.1. Emergency Questionnaire

The *Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)* will be completed by the ER Team member taking the call (the ER Respondent). This person is then to take the following action:

4.2. Emergency Response Action Log

The ER Team member shall ensure that they have a completed a copy of the *Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)* and have obtained all relevant and critical details relating to the incident.

Upon notification of an emergency, the ER Team member shall commence recording all actions taken, using the *Emergency Response Incident Action Log (HAZ-OHS-FOR-24)*. These actions shall be time logged at all times. This log shall be referred to during the debriefing, to be conducted at the completion of the emergency response.

5. EMERGENCY RESPONSE EQUIPMENT

The ER Manager will maintain a supply of equipment solely for emergency response incidents.

- ER Team personnel kit.
- Emergency Response Store

Equipment and consumables will be reviewed weekly. An audit of equipment and consumables will be completed every six (6) months using Emergency Response Audit Checklist (HAZ-OHS-FOR-27).

5.1. Emergency Response Kit

The following equipment shall be carried by all ER Team personnel:

Basic First Aid Kit (to be kept in each company vehicle)

Personal Protective Equipment consisting of:

- Small fire extinguisher (to be kept in own vehicle)
- Disposable protective overalls
- Hi-visibility reversible vest with "Emergency Response Team"
- PVC gauntlets
- Ear plugs
- Broad brim hat
- Sunscreen
- Wet weather clothing

Uncontrolled copies of the following documents:

- Hazrad Australia Emergency Response Plan (HAERP)
- Emergency Response Incident Questionnaire (HAZ-OHS-FOR-23)
- Emergency Response Incident Action Log (HAZ-OHS-FOR-24)

5.2. Emergency Response Store List

Spill control requirements:	No. Required	Fire control:	No. Required
Attapulgate absorbent granules (bags)	20	9.0kg dry chemical fire extinguisher	2
Paper absorbent granules (bags)	40	Personal protective equipment:	
Peat absorbent (bags)	10	PVC gauntlets pairs	20
Carton of drain socks 100mm x 6m	10	Nitrile gloves boxes	10
Oil floating booms 6m x 150mm	4	Face shield	4
Drain covers (610mm x 610mm)	2	Box of dust masks (P2)	2
Pack of absorbent pads (100 per pack)	1	Goggles	x
200L Hazmat drum	6	Safety glasses (clear)	10
200um PE bags (240L capacity)	50	Safety glasses (tinted)	10
Tools:		Full face mask with multi cartridges	4
Shovels – square and round	2	Hi-visibility vests	4
Rake	2	Hardhats with sunshields	4
Broom	2	Wide brim hats	4
Mattock	1	Full set of cotton Hi-visibility clothing	4
Long handle squeegees	2	Disposable chemical resistant suit	10
Duct tape roll	2	Miscellaneous:	
Basic screwdriver set	1	Danger tape red/white tape (50m)	2
Basic shifter set (up to 450mm)	1	Caution tape yellow/black tape (50m)	2
Claw hammer	1	Garden hose (30m) and fittings	2
Hacksaw with spare blades	1	Bag of rags	20
Pipe wrench (75mm jaw opening)	1	Industrial strength soap dispenser	1
Tool bag	1	Water container (20L) with tap	1
Set of hole saws	1	Roll builders plastic	2
Electrical:		Tarp (6m x 4m)	2
5 kva generator	1	Type C First Aid kit	2
Work lights	4	Witches hats	6
Extension lead	4		
Intrinsically safe torches and batteries	4		
Air compressor 240volt x 40Ltr	1		

Note: this is the mandatory basic contents of the Emergency Response Store. It is the discretion of the Emergency Response Manager to provide any additional or relevant equipment.

5.3. Equipment Inspections, Testing and Maintenance

Equipment maintenance is carried out before and after deployment of equipment. ER staff are trained to perform routine maintenance checks on any equipment they use, including personal protective equipment and apparatus used within the field such as pumps, compressors, hoses and breathing apparatus.

Pump – Chemical	Flushed, cleaned and serviced after every use. Periodic hydrostatic and continually tested.
Chemical Hoses	Decontaminated after every use. To be hydrostatically/ continuity tested and stamped every 6 months.
BA Sets	Tested before and cleaned and after every use. Full service and certification every 3 years.
BA Air Cylinders	Certified every 3 years
Generator	Monthly check of fluids. RCD tested before every use. Extension leads to be tested/tagged as per Australian Standards.
Compressor	Serviced and maintained as per owner's manual. Fluid levels checked before every use.
Full & Half face Masks	Decontaminated and maintained after every wear. Face fit tests performed annually.
High Pressure Washer	Serviced and maintained as per owner's manual. Fluid levels checked before every use.
Long Line Filter Unit	Recording of hours used and following Manufacturer Standards for filter changes and servicing.
General PPE	Restocking of all PPE after every use. Monthly stock level checks.
All other equipment / consumables	Maintained and serviced as necessary. Weekly stock level checks.

6. EMERGENCY RESPONSE SPILL CONTROL AND CLEAN-UP

The objective of responding to an incident involving the release or potential release of hazardous materials is to prevent or reduce adverse effects to health, property and the environment by controlling the incidents impact. Control measures involve those processes, methods, procedures and techniques that are used to prevent or reduce the dispersion of a material or its by-products into the environment. These control measures include, neutralisation, construction of temporary dams, berms, or dykes, plugging leaking containers, applying absorbent materials and other methods.

There are several methods to contain or control a hazardous material leak, both defensively and offensively. Containing a leak to limit the spread of hazardous materials from its original container is one form of defensive containment, while restricting material to its original container is considered to be offensive containment, albeit placing personnel within close proximity to the hazardous substances.

It is to be assumed that the majority of chemical incidents requiring emergency response will be those applicable to packaged materials. That is, small containers, including glass, plastic and metal, 205-litre and other sized drums and Intermediate Bulk Containers or IBCs, both plastic and metal. Bulk liquid tankers including isotainers and rigid mounted tanks are not used regularly in most ER incidents. To address the variations of dangerous goods spills and their subsequent clean-ups, packaged and bulk loads will be addressed simultaneously.

Assess the situation and ensure the plan for containment/clean-up has been discussed with the ER Manager to ensure the method to be used is compatible with the situation, including use of and required tools, such as over-drums/packs, air monitoring meters and the correct personal protective equipment (PPE).

Assess the number of responders required, equipment required to undertake the clean-up, potential vapour releases with gas monitoring equipment, physical limitations, hazards faced in the hot zone.

Have applicable antidote kits available for any reactive/toxic chemicals. Ensure decontamination equipment and procedures are in place before entering the hot zone.

6.1. Clean-ups of individual Dangerous Goods Classes

For all materials, once the ER team is on the scene of an incident the following will apply:

- Have a thorough understanding of the material(s) to be cleaned up, through obtaining the correct SDS's, and liaison with the ER Manager and/or chemist.
- Check to see if any other incompatible materials were transported. If so, address each material in accordance with their classes and spill containment measures, while taking into account reaction of incompatible materials.
- Ensure the correct PPE is worn.

6.1.1. Class 2.1 – Flammable Gases:

- Before attempting to deal with a leaking gas, it is essential to accurately identify the leaking gas.
- Ensure all ignition sources are eliminated. Make certain any tools to be used are spark proof.
- Increase ventilation to assist with dispersion.
- Approach all containers which have been exposed to elevated temperatures cautiously as these maybe hot and or potentially explosive.
- If possible, vent the product from the leaking container in a safe location for onsite disposal.
- If not safe to dispose on site; stop the leak via temporary abatement or other suitable method.
- Or decant the contents of the leaking container into other evacuated suitable containers.

- Transport to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.2. Class 2.2 – Non-flammable Gases:

- Before attempting to deal with a leaking gas, it is essential to accurately identify the leaking gas.
- Persons not wearing positive pressure breathing apparatus and other personal protective equipment should not approach leaking unidentified cylinders. If it is not possible to identify the leaking gas, then it is recommended that it should be assumed to be toxic, flammable/pyrophoric and corrosive.
- Increase ventilation to assist with dispersion.
- If possible, vent the product from the leaking container in a safe location for onsite disposal.
- If not safe to dispose on site; stop the leak via temporary abatement or other suitable method.
- Or decant the contents of the leaking container into other evacuated suitable containers.
- Transport to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.3. Class 2.3 – Toxic Gases:

- Before attempting to deal with a leaking gas, it is essential to accurately identify the leaking gas.
- Persons not wearing positive pressure breathing apparatus and other personal protective equipment should not approach leaking cylinders.
- Warn other personnel and ensure evacuate the area.
- Prevent access to the area by roping off and warning notices.
- Make certain any tools to be used are spark proof.
- Approach all containers which have been exposed to elevated temperatures cautiously as these maybe hot and or potentially explosive.
- Increase ventilation to assist with dispersion.
- If possible, stop the leak via temporary abatement or other suitable method.
- Or decant the contents of the leaking container into other evacuated suitable containers.
- Transport to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.4. Class 3 – Flammable Liquids:

- Ensure all ignition sources are eliminated.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make certain any tools to be used are spark proof.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Approach all containers which have been exposed to elevated temperatures cautiously as these maybe hot and or potentially explosive.
- Contain and absorb spill with sand, earth, absorbent materials, inert materials or vermiculite.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.

- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.5. Class 4.1 & 4.2 – Flammable Solids

- Ensure all ignition sources are eliminated.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make sure any potential disturbance of spilled material is kept to a minimum.
- Make certain any tools to be used a spark proof.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Approach all containers cautiously as these maybe hot and or expansive from the fire or potentially explosive.
- Contain and absorb spill with sand, earth, absorbent materials, inert materials, or vermiculite.
- Sweep up and material and confirm material does not react to water, then dampen spilt area with water to prevent rising dust from and before sweeping.
- Place damaged containers into over-drums.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.6. Class 4.3 – Dangerous When Wet:

- Ensure no water sources, including moist air are present as materials react violently with water liberating extremely flammable gases and explosive peroxides.
- Wear correct PPE.
- Check area for any dangerous situations.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make sure any potential disturbance of spilled material is kept to a minimum.
- Make certain any tools to be used a spark proof.
- Avoid scattering material by not walking through spill.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Approach all containers cautiously as these maybe hot and or expansive from the fire or potentially explosive.
- Contain and absorb spill with dry sand or earth, non-combustible materials, or vermiculite.
- Place damaged containers into over-drums.
- Use DRY sand, graphite powder, dry sodium chloride-based extinguishers in case of a fire.
- If a fire occurs and is impossible to extinguish, withdraw and allow the fire to burn itself out.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.7. Class 5.1 – Oxidising Solids:

- Ensure all ignition sources are eliminated, including any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make certain any tools to be used are spark proof.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain and absorb spill with dry sand, inert material or vermiculite.
- Place damaged containers into over-drums.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.8. Class 5.2 – Organic Peroxide Liquid:

- Ensure all ignition sources are eliminated, including any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials.
- Materials may be reactive to temperature, so ensure all parts of the SDS are understood before any works commence.
- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Make certain any tools to be used are spark proof.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain and absorb spill with dry sand, inert material or vermiculite.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.9. Class 6.1 – Toxic Liquids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.

- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.10. Class 6.1 – Toxic Solids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials.
- Place damaged containers into over-drums.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- If material does not react to water, dampen spilt area with water to prevent dusting before sweeping.
- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.11. Class 8 – Corrosive Liquids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials. Neutralising agents may also be used in conjunction with suitable absorbent materials if deemed suitable.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.12. Class 8 – Corrosive Solids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials. Neutralising agents may also be used in conjunction with suitable absorbent materials if deemed suitable.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.

- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.13. Class 9 – Miscellaneous Liquids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials. Neutralising agents may also be used in conjunction with suitable absorbent materials if deemed suitable.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area & remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.1.14. Class 9 – Miscellaneous Solids:

- With vaporous or dusty materials, team will enter the incident from an up-wind position.
- Prevent any spilled material (including fire-fighting foam, water and or powder) from entering drains, watercourses, sensitive environmental areas, etc.
- Contain spill with sand, earth or other suitable absorbent materials. Neutralising agents may also be used in conjunction with suitable absorbent materials if deemed suitable.
- Place damaged containers into over-drums and or pump out larger damaged containers into suitable containers.
- Keep unsullied and recovered material apart when cleaning up.
- Scoop up solid residues and seal in labelled drums for disposal.
- Collect solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate spill area and remove all contaminated material such as soil etc.
- Transport all spilled material to a licensed disposal facility (ie Hazrad Australia Bibra Lake – L9228) for disposal, unless required for insurance or investigation purposes in which case the spilled material is to be stored at this facility.

6.2. Task Completion and Debrief

Once the incident clean-up has been completed, a debrief will be performed. All learning outcomes should be communicated to all members of the ER team. Debriefing will be considered desktop incident training. Provide relevant reports to the customer and to regulatory bodies as required.

7. ER PERSONNEL TRAINING

7.1. Inductions

- Customer specific site inductions (as required)
- WA Construction White Card

7.2. Licences

- Licence to perform high risk work – LF.

7.3. Nationally Recognised Training

- HLTF301B Apply First Aid (Senior First Aid)
- PMAOHS311B Lead Emergency Teams
- PMAPER205B Confined Space Entry
- PUAFIR201B Prevent Injury
- PUAFIR207B Operate Breathing Apparatus Open Circuit
- PUAFIR306B Render Hazardous Materials Incident Safe
- PUAFIR308B Employ Personal Protection at a Hazardous Materials Incident
- Dangerous Goods Transport Licence
- Working At Heights

7.4. ER Personnel Non-mandatory Training

- Drivers Licence – LR

Safe Work Method Statement (SWMS) Truck / Vehicle Operations



WORK ACTIVITY:	Semi Side Loader Truck / Vehicle Operations - Bulk DG			SWMS No:	HAZ-SWMS-034	DATE:	18/05/2026
PROJECT:	Liion Energy – Transport of Burnt Lithium Batteries			JOB NO:		REVISION:	0
BUSINESS NAME:	HazRad Australia - Wattleup	ABN:	27 626 763 782	ADDRESS:	13 Musson Road, Wattleup WA 6166		
BUSINESS CONTACT:	██████████	PHONE:	██████████				
WORKS SUPERVISOR:	██████████	PHONE:	██████████	SIGNATURE:	Supervisor to sign here	DATE:	18/04/2026

SWMS PREPARED BY: (Including consulted workgroups, workers' representatives, suppliers, hired workers, etc)	GUIDING RULES			
Name: ██████████ Sign: _____	1. Identify scope of work			
Name: ██████████ Sign: _____	2. Break job into steps.			
Name: Input Name Sign: _____	3. Identify hazards associated with each step			
	4. Assess the risk levels associated with each hazard, in each step given the existing controls.			
	5. Focus on risks & develop controls utilizing the hierarchy of control.			
	6. Determine the residual risk and obtain the appropriate authorisation.			
Person responsible for implementing & monitoring SWMS compliance:	Name: ██████████	Sign: _____	Date: 18/04/2026	
Person responsible for reviewing SWMS control measures:	Name: ██████████	Sign: _____	Date: 18/04/2026	
What measures are in place to ensure compliance with SWMS	☐ Task observations	☐ Inspections	☐ Audits	☐ Other _____

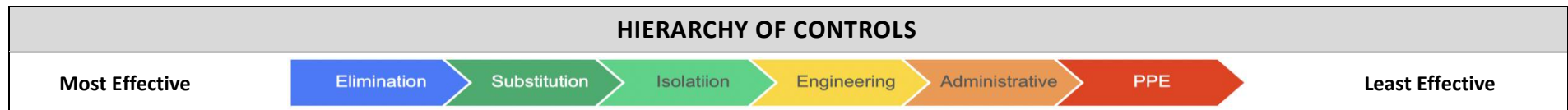
SELECT RELEVANT HIGH RISK CONSTRUCTION WORK ACTIVITY					
☐ Work involving structural alterations that require temporary support	☐ Work in, on or near chemical, fuel, or refrigerant lines	☒ Work in, on or near roads or railways in use by traffic			
☐ Work at a height above 2 meters	☐ Work in tunnels	☐ Work involving the use of explosives			
☐ Work involving excavation/trenching to a depth greater than 1.5m	☐ Work in, on or near pressurised gas distribution mains or piping	☐ Work over or adjacent to water where there is a risk of drowning			
☐ Work involving removal or disturbance of asbestos	☐ Work involving confined spaces	☐ Work involving tilt-up or precast concrete			
☐ Work involving diving	☐ Work in, on or near powered mobile plant	☐ Work in, on or near electrical installations or services			
☐ Work in, on or near telecommunications towers	☐ Work in, on or near artificial temperature extremes	☐ Work involving demolition			
☐ Work in, on or near contaminated or flammable atmospheres					

Safe Work Method Statement (SWMS)

Truck / Vehicle Operations

Likelihood Description	
Almost Certain	Expected to occur in most circumstances. (More than once a year)
Likely	Will probably occur at some stage. (Approx. once a year)
Possible	Could occur at some stage. (Once every 1 – 5 years)
Unlikely	Not likely to occur but it is possible. (Once every 5 – 10 years)
Rare	Only in exceptional circumstances. (Less than once every 10 years)

Consequence Description			
	<i>Personnel</i>	<i>Environmental</i>	<i>Financial</i>
Catastrophic	Fatality	Permanent damage. Species and habitat destroyed.	Loss > \$250K Irreparable damage to product
Major	Permanent disability – LTI	Long term effect. External services required to manage.	Loss \$100K - \$250K Serious damage to product
Moderate	Medical treatment – RWI, MTI	Medium term effect. Contained without external assistance.	Loss \$25K - \$100K Repairable damage to product
Minor	Immediate return to work – FAI	Minor damage. Within site boundaries	Loss \$5K - \$25K Minor damage to product
Insignificant	No treatment required	Negligible damage.	No loss or damage to product



		CONSEQUENCE				
		1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
LIKELIHOOD	5 Almost certain	Moderate (5)	High (10)	Extreme (15)	Extreme (20)	Extreme (25)
	4 Likely	Low (4)	Moderate (8)	High (12)	Extreme (16)	Extreme (20)
	3 Possible	Low (3)	Moderate (6)	High (9)	High (12)	Extreme (15)
	2 Unlikely	Low (2)	Low (4)	Moderate (6)	Moderate (8)	High (10)
	1 Rare	Low (1)	Low (2)	Low (3)	Low (4)	Moderate (5)

RISK SCORING	Score	Action
	Extreme	Unacceptable risk. DO NOT PROCEED.
	High	Further action required to minimise risk before commencing work
	Moderate	Acceptable Control measures to minimise risk.
	Low	Acceptable No further action required

To calculate risk, you simply need to select one CONSEQUENCE & one LIKELIHOOD.
Multiply the corresponding consequence and likelihood numbers to calculate final risk result.

Safe Work Method Statement (SWMS)

Document Number: HAZ-F0092



NO.	JOB STEP <i>(Break the job into logical steps)</i>	HAZARDS IDENTIFIED <i>(During this step)</i>	INITIAL RISK RATING			CONTROL MEASURES <i>(To reduce the level of risk to an acceptable level)</i>	RESIDUAL RATING		
			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
1.	Planning & preparation	Lack of planning -potential injury, property damage &/or environmental incident	2	3	6 (M)	- Liaise with PCBU (DFES, Main Roads, LGIRS, DWER) and obtain as applicable: - Health and Safety rules - Prestart for all workers - Supervisory arrangements - Operational Lead (DFES) - Workers are appraised for required competencies; - Bulk DG Licencing - Verify Route selected is defined and presented to all involved in the convoy - Verify Route selected is passable under all condition with consideration given to vehicle size and capacity (are there low bridges, turning circle, load limits, etc) - Journey Management Plan (JMP – Rev 0 – Liion Energy) - Are all escorts available - Communication arrangements - PPE required - DG Class 9 - Eye Wash Kit - Chemical Resistant Gloves - Electric Torch - Respirator: Half Face - L/S Shirt, Pants, Steel Cap Boots - Exclusion Zones - Emergency Stopping Locations (x3) - Location 1: _____ - Location 2: _____ - Location 3: _____ - Injury reporting procedures - Hazard reporting procedures.	3	1	2 (L)
		Communications failure	3	3	9 (H)	- Ensure: - A procedure is developed for regular contact with people working remotely or in isolation, which outlines the frequency, nominated time, and method of contact appropriate for the work location and conditions - An immediate supervisor or manager is aware of travel itineraries, current locations & what tasks are being undertaken in the remote area(s) - Scheduled contact persons and Injury reporting procedures are developed and in place - Mobile & satellite phones and Emergency Position Indicating Radio Beacon (EPIRB) are fit for purpose, tested before departure & phones have spare, fully charged batteries and facilities for continuing charging - An emergency response procedure is developed & followed by the works depot - Establish and confirm communication channels are operable (eg UHF 40 Channel, Phone numbers, etc - Establish the communications protocols that will apply to all vehicles involved in the transit - Establish expected start time and expected completion time	3	1	3 (L)
2.	Training, Capabilities & Qualifications	Lack of training or the assessment of capability may lead to personal injury, property damage &/or environmental incident.	2	3	6 (M)	- All heavy vehicle operators must be licensed (HR & Bulk DG) and deemed competent on the make/model of heavy vehicle - Vehicle must be registered with the State Road and Traffic Authorities prior to use. - Ensure all relevant workers have undertaken training and/or received instruction in the use of the vehicle and control measures. Including: - Correct use of the vehicle in expected operation – side loader - Correct use of recovery equipment including selecting, fitting, use, care of and maintenance - What to do in the case of a crash or emergency - First aid training current - At least one person in the vehicle is knowledgeable and experienced in recovery operations - Use of supervision where required (e.g. new starters or new equipment) - All workers are trained in this SWMS - Reporting procedures for incidents - Understanding the causes and effects of driver fatigue. ⚠️ Check workers are in fit condition to work i.e. no signs of fatigue, alcohol or drugs.	3	1	2 (L)

Safe Work Method Statement (SWMS)

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NO.	JOB STEP <i>(Break the job into logical steps)</i>	HAZARDS IDENTIFIED <i>(During this step)</i>	INITIAL RISK RATING			CONTROL MEASURES <i>(To reduce the level of risk to an acceptable level)</i>	RESIDUAL RATING		
			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
3.	Assess Travel Conditions	Communication failure Lack of a clear assessment may lead to personal injury, property damage &/or environmental incident.	3	3	9 (H)	- Assess proposed travel conditions. Ensure: - Suitable weather conditions (check your state Government websites for road conditions & other travel info) - Consult weather forecasts and observe weather warnings - Pre-plan refuelling stops - Suitable ground / track conditions for operation of vehicle - Route within vehicle manufacturer's slope/gradient limits - Route within vehicle manufacturer's water fording limits.	3	1	3 (L)
4.	Prestart check	Lack of a clear assessment may lead to potential personal injury, property damage &/or environmental incident.	2	3	6 (M)	Complete <i>(Pre start Checklist in Safety Culture)</i> Inspect before use. Ensure: Check that vehicle is in a mechanically sound condition and operator's instructions are available No evidence of fluid leaks All required safety equipment is fitted and operational All safety guards are in place and undamaged All stored items in cabin and roof racks are secured Reversing beepers functioning Vehicle break-down equipment: High visibility/reflective gear suited for day/night combinations Wet weather gear Seatbelt present and in good condition Traffic cones / signs / reflectors Mirrors are present, functional and adjusted correctly Confirm Route is navigable Confirm all means communications are operable and all parties have the required details (ie #). Confirm all escorts have operable communication Confirm route is communicated to all parties in the convoy/transit Confirm driver fit for duty Do not use if any fault/damage/missing parts. Report immediately and tag out of service until repaired	2	1	2 (L)
5.	Vehicle Operation	Fatigue - Vehicle Accident	4	4	16 (E)	- Follow Driver Fatigue Management procedures - Ensure well rested before starting the trip - Avoid driving at night when a person normally sleeps - Share the driving with another person if possible - Stop for a 15 minute rest break every two hours - Where possible, do not drive more than 10 hours in any 24 hour period - Split trip into shorter continuous driving periods wherever possible.	4	2	8 (M)
		"DO NOT STOP" ZONES	4	4		- No Stopping; - Bridges or overpasses - Tunnels or underpasses - Densely populated / residential zones - Near fuel stations or hazardous facilities			
		Vehicle accident -Loss of control	4	4	16 (E)	- Only licensed drivers to drive vehicles - Observe road rules at all times - Wear seat belts at all times when driving - Remain attentive - Watch for possible hazards - Use mirrors often to monitor the activity around you	4	2	8 (M)

Safe Work Method Statement (SWMS)

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NO.	JOB STEP (Break the job into logical steps)	HAZARDS IDENTIFIED (During this step)	INITIAL RISK RATING			CONTROL MEASURES (To reduce the level of risk to an acceptable level)	RESIDUAL RATING		
			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
						- Drive Smoothly – Be aware of the high centre of gravity of 4wd vehicles, Start and stop smoothly. Avoid sharp turns - Monitor vehicle constantly for any malfunctions that may affect vehicle performance - Watch for vehicles entering from side roads/tracks Give way to approaching trucks/road trains - Monitor/use UHF radio, to monitor for changes to road conditions & vehicle movements (generally channel 40) - Do not exceed weight capacity the vehicle - Do not – use mobile phone while driving. - Do not – adjust radio channels or volume while driving - Drive to the road conditions i.e. slow down when raining or on gravel roads. - Communication protocols - Adopt incident protocols with others in the convoy For Emergency / First Response (Driver/Escort ONLY if safe): - Do not approach to container unless directed by DFES			
		Container breach or sand suppression failure	4	3	12 (H)	- Pre-Defined Safe Stopping Locations - Minimum 2–3 pre-approved emergency stopping locations to be identified prior to mobilisation (e.g. industrial zones, wide road shoulders, laydown areas). - Locations to: - Be >50 m clear of public access where practicable - Avoid overhead structures and confined areas - Allow DFES appliance access - Locations to be mapped and communicated to all convoy personnel pre-start	4	2	8 (M)
		Pedestrian safety	3	3	9 (H)	- Ensure no persons in vicinity before and during start-up and operation of the vehicle - Travel at appropriate speed for conditions observing speed limits and warning signs - Avoid reversing wherever possible. - Drive to the road conditions i.e. slow down when raining or on gravel roads. - Communication protocols - Adopt incident protocols with others in the convoy	3	1	3 (L)
		Thermal runaway – re-ignition during transit – Burns, personnel injury	4	4	16 (E)	- Carry plenty of drinking water - Never drive through heavy smoke - Ensure headlights are on to remain visible to other vehicles. If trapped by fire: - Remain in the vehicle (leave vehicle running & lights on) - Tightly close windows and doors and vents - Lie low on the floor of the vehicle and cover up with any available materials such as floor mats or clothing - If possible park in a cleared area free of vegetation and protected by a structure e.g. bridge, large rocks etc. - Drive to the road conditions i.e. slow down when raining or on gravel roads. - Communication protocols - Adopt incident protocols with others in the convoy - Avoid the tops of hills - If time allows: - Clear vegetation leaves from under & around vehicle - Remove flammable equipment etc. fuel, gas bottles. - Wait for fire to pass before exiting vehicle.	4	2	8 (M)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
		Bogged vehicle	3	3	9 (H)	Partially deflate the vehicle's tyres not less than 20psi. <i>Deflating tyres increases the footprint of the tyre:</i> When tyres deflated ensure: - Avoid sharp turns - Do not exceed 50 kph - Reinflate (if possible) when conditions passed - Drive at a constant speed - limit gear changes - Sand, drive in existing tyre tracks if available - Drive in a straight line and avoid turning front wheels wherever possible (no sharp turns) - Do not use excessive wheel spin if vehicle becomes bogged – Start recovery immediately to avoid becoming bogged deeper.	3	1	3 (L)
		Weather & Wind Considerations	3	3	9 (H)	Mandatory weather check prior to departure (wind speed/direction, temperature) Wind direction relative to travel route (plume modelling) - High temperature increasing risk of re-ignition Control Measures: - Avoid transport during extreme heat or high wind events - If incident occurs: - Position vehicle upwind of plume where practicable - Establish exclusion zone downwind direction (minimum 50–100 m or as directed by DFES)	3	1	3 (L)
6.	Vehicle Recovery Operations	Hit by moving vehicle/objects	4	3	12 (H)	⚠ Always wear hi vis. vest when undertaking recovery operations. Using Snatch Strap - If practicable, dig in front of all 4 wheels, to give the vehicle a chance to pop up - Ensure snatch strap is rated for use for weights of vehicles to be pulled - Snatch strap is in good condition with no sign of damage. (Do not use if any signs of damage or tears) - Attach snatch strap to designated rated recovery points only - All shackles are rated (stamped with Working Load limit) - Do not attach to areas such as suspension, steering components, bumper bars, tow balls etc. - Use snatch strap as per instructions and training, following instructions for connection and safety straps - Ensure all persons not in vehicles are clear of area (at least 1.5 times the length of the unstretched strap & out of direct line of sight of the operation (if strap breaks attachments, shackles etc. become lethal missiles) - Drape a heavy bag or other dampening device (e.g. floor mat) over strap prior to operation Never join straps with a shackle - feed one end of snatch strap 1 through the eye of snatch strap 2. Then, feed the same eye of snatch strap 1 over the other end of snatch strap 2 and pull together Jack & pack under vehicle: - If practicable, dig in front of all 4 wheels, to give the vehicle a chance to pop up - If soil conditions permit, jack up the vehicle and put some form of hard material under the wheels such as branches, stones, leaves, grass or twigs - Lower vehicle and remove jack - Keep the wheels as straight as possible to give them traction - Selecting 2nd or 3rd gear in low range attempt to drive out, keep up momentum until you are well clear of the bog and once out, remember to re-inflate your tyres if deflated. Using winch - If a winch is available for use, ensure winch is rated for vehicle mass - Setup and operate as per manufacturer's instructions - Attach to designated rated recovery points only: - Do not attach to areas such as suspension, steering components, bumper bars, tow balls etc. - Ensure sufficient room around winch for operator - Clear persons from exclusion zone. ⚠ If using remote controls ensure operator is clear of exclusion zone at all times.	4	2	8 (M)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
						- If practicable, dig in front of all 4 wheels, to give the vehicle a chance to pop up - Ensure clutch is fully engaged before lift/tension, Do not disengage under load - Ensure smooth movement; do not apply jerky movements (increases load weight dramatically) - Where a winch cable is passed through pulley of snatch block & secured to fixed point, "winch pull" is approx. doubled - Ensure SWL is not exceeded for all components e.g. shackles, tree trunk protectors, snatch blocks etc. - If winched item is lodged release tension to point where lodged item in safe position - Pry free as required, re-apply tension, and resume winching - Maintain constant visual contact with cable and/or spotters. Ensure communication /directions followed.			
		Cuts, lacerations, Crush injuries	3	2	6 (M)	- When spooling-in, don't let cable slip through hands. Use hand-over-hand technique & wear leather gloves - Inspect condition of rope/cable during spooling to identify any defects - Don't put hands/ body parts close to drum spooling-in (pinch points exist between cable & drum housing) - Ensure cable is spooled tightly and evenly onto drum, avoid tangling	3	1	3 (L)
		Muscular stress / musculoskeletal disorder (MSD)	3	2	6 (M)	- Use mechanical lifting aids i.e. jacks whenever possible - Use two or more people for lifting & moving heavy / awkward equipment - Avoid awkward and sustained positions - Take Regular breaks - Never try to pull vehicle – Do not overstrain if pushing.	3	1	3 (L)
7.	Tyre repair/ change – Working outside of vehicle	Crush injuries	4	2	8 (M)	⚠ Always use appropriate and rated lift brace equipment and /or suitable SWL blocks / jacks. ⚠ Never place any part of your body under the vehicle. Before commencing tyre change / repair. Ensure: 1. Park the vehicle in a safe location on level ground 2. Parking brake is engaged 3. Operate the hazard warning lights 4. Engine is turned off & the start switch key is removed 5. Chock the wheels - front and back 6. Jack up vehicle to a suitable height off the ground to enable removal of the flat/ unserviceable tyre and fitting of the inflated spare tyre.	4	1	4 (L)
		Muscular stress / musculoskeletal disorder (MSD)	3	2	6 (M)	- Avoid awkward and sustained positions - Use two person lift for tyres wherever possible - Avoid any twisting, awkward positions and side-bending when holding tyre under weight - Do not use excessive force when removing wheel nuts – use extension bars if required.	3	1	3 (L)
		Struck by passing vehicle	4	4	16 (E)	⚠ Always wear hi vis. vest when undertaking recovery operations. Check constantly for changing hazards while always working and monitor work position. - Do not stand behind reversing vehicles - Allow sufficient distance from other vehicles and plant - Obey road safety/ warning signs/ traffic barriers - Be alert at all times. Listen for: - o Reverse beepers/ horns - o Calls from Truck Operators If confronted with a snake: - Do not approach a snake - Do not make sudden movements - Do not attack or attempt to harm snake - Back away slowly/ stay still to allow snake to escape - Treat every snake as if it is venomous.	4	2	8 (M)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
						Spider bites: - Always wear gloves when opening / moving any part of equipment and rolling up hoses - Visually check all equipment before picking up Ensure: - Adequate Bites/Stings First Aid kit is available. - Adequate communication method/ plan always in place			
8.	Vehicle Accident	Injury / Damage	4	4	16 (E)	In case of accident - Quickly make the immediate accident site safe by turning off any running vehicles and equipment, if safe to do so - Do not leave any accident site without stopping - If conditions are unsafe, evacuate to at least 50 metres - DO NOT RE ENTER the emergency zone - Place warning equipment, traffic cones signage etc. to warn oncoming traffic if accident presents a hazard - Encourage people to remain calm and to move off in an orderly manner - If required, call the appropriate Emergency Services (000). Mobile = Call 112 - Administer first aid if trained.	4	2	8 (M)
9.	Vehicle breakdown	Work adjacent to road & public safety / Injury	4	3	12 (H)	- If your vehicle has broken down stay with it, even on a little-used track, as a car is easier to spot than a single person - Your vehicle will also provide shelter, increasing your chances of survival - Wear hi vis./reflective vest if roadside - Position the vehicle safely as far off the road as possible and turn on hazard lights - Place warning equipment, traffic cones signage etc. to warn oncoming traffic if breakdown presents a hazard - Contact emergency services, office or supervisor.	4	1	4 (L)
10.	Refuelling	Diesel Spillage. Machine Interface. Fire	4	3	12 (H)	1. Shut off engine 2. Allow to cool before re-fueling if possible 3. Remove cap slowly 4. Use a fuel hose, pouring spout or funnel 5. Fill tank and wipe away excess 6. Ensure there is no over spill 7. Ensure cap has been secured and any vapour residue has been wiped away 8. Check for leaks. • DO NOT smoke during re-fuelling Ensure re-fueling is undertaken in well-ventilated area, clear of ignition sources - Ignition sources include cigarettes, matches/lighters, grinding, welding, power points, lighting, light switches, Material/Safety Data Sheets (M/SDS) for all fuel products on hand Follow manufacturer's manual/recommendations for re-fuelling Ensure fire extinguisher available and in date. Diesel: – Water, foam, dry chemical powder, CO ₂ Unleaded petrol: – Dry chemical powder, foam, CO ₂ . Never use water to extinguish an Unleaded Petrol fire.	4	1	4 (L)
		Exposure to hazardous chemicals / substances	3	3	9 (M)	- Avoid breathing vapours or contact with fuel - If clothing is splashed with fuel, change immediately - Do not siphon or swallow fuel as this can be fatal - Do not eat, drink or smoke during/after-handling fuel until hands are carefully washed - Shower and wash immediately after work - Wash clothes in separate wash from other clothes.	3	1	3 (L)
		Muscular stress / musculoskeletal disorder (MSD)	3	3	9 (M)	Where possible use pump to transfer fuel from container into tank. If using fuel container, and lifting into place: - Lift smoothly, do not jerk or throw load upwards - Avoid any twisting and side-bending during lift - Bend knees, not back. - Avoid awkward and sustained positions.	3	1	3 (L)

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			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk
						Adopt directions issued by Emergency Services and lead Escort - DFES			
		Environment incident	3	3	9 (M)	Ensure training in emergency response for chemical spill. Emergency response –fuel spill: 1. Stop the source of the spill or leak or release: a. If that is not possible & it is safe to do so - stop the spill or release from spreading 2. Turn off any ignition sources if safe to do so 3. Use gravel or other material to stop fuel entering drains/water courses 4. Clean up spill as required.	3	1	3 (L)
11.	Emergency Response	Emergency due to unstable load – changing conditions (eg heat generation, materials of combustion (shole, gases, etc), potential ingress in pressure inside the half height freight container	4	2	8 (M)	⚠ FOLLOW EMERGENCY RESPONSE PROTOCOLS CALL 000 IMMEDIATELY (If mobile phone out of range use 112) - Constant monitoring of items being transport (Visual) - If contact cannot be made by 2-way radio or phone and there is a grave and imminent danger to life situation, then the EPIRB should be deployed by the person at the remote location. When activated it will emit continuously a distinctive radio signal for up to 4 days on the international distress frequencies. The EPIRB must remain activated until rescue has been completed - Nominated contact person must ensure speedy notification of emergency services in the event of: - EPIRB or a Personal Location Beacon (PLB) being activated - Call for assistance from the remote area worker/crew. - Adopt ERG 138 - Notify escorts and base	4	1	4 (L)

Safe Work Method Statement (SWMS)

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ON SITECHANGES / ADDITIONAL STEPS									
DATE	JOB STEP <i>(Break the job into logical steps)</i>	HAZARDS IDENTIFIED <i>(During this step)</i>	INITIAL RISK RATING			CONTROL MEASURES <i>(To reduce the level of risk to an acceptable level)</i>	RESIDUAL RISK		
			Consequence	Likelihood	Initial Risk		Consequence	Likelihood	Initial Risk

PERMITS REQUIRED:	☐ N/A ☐ Hot Work ☐ Confined Space ☐ Work at Height ☐ Local Council ☐ Other / Client: _____			
SITE SPECIFIC HAZARDS:	☐ Electrical equipment ☐ Hot Work ☐ Noise and vibration ☐ Fuels, oils & chemicals	☐ Elevated levels ☐ Hazardous manual tasks ☐ Native vegetation & weeds ☐ Terrestrial fauna	☐ Slips, trips, and falls ☐ Outdoor work ☒ Air quality ☐ Waterways & soils	☒ Hazardous substances ☐ Remotely &/or isolated work ☒ Waste ☐ Cultural heritage

Document Number: HAZ-F0092



This SWMS has been developed in consultation and cooperation with workers and relevant Persons Conducting Business or Undertaking (PCBU).
I have read the above SWMS and I understand its contents. I confirm that I have the skills and training, including relevant certification to conduct the task as described.
I agree to comply with safety requirements within this SWMS including risk control measures, safe work instructions and PPE described.

[illegible]

Safe Work Method Statement (SWMS)

Document Number: HAZ-F0092



REMOTE DRIVING CHECKLIST

VEHICLE TYPE:			REGISTRATION NO.			DATE:		
ITEM	YES	NO	N/A	ITEM	YES	NO	N/A	
Daily logbook completed	☐	☐	☐	Operation manuals available	☐	☐	☐	
Operator licensed to operate	☐	☐	☐	Cabin				
Fluid Levels				Clean, free of clutter	☐	☐	☐	
Oils	☐	☐	☐	Ventilated / AC	☐	☐	☐	
Water	☐	☐	☐	Cargo barrier	☐	☐	☐	
Fuel	☐	☐	☐	Loose objects secured/removed	☐	☐	☐	
Fluid leaks				Exterior				
Water, oil	☐	☐	☐	Loads fully secured	☐	☐	☐	
Tyres / wheels / tracks				Vehicle Spares	☐	☐	☐	
2 Spare wheels	☐	☐	☐	Gauges / Lamps / Warning systems	☐	☐	☐	
Suitable type for conditions	☐	☐	☐	Lights – front / rear/ stop / turning / beacons	☐	☐	☐	
Have adequate tread depth	☐	☐	☐	Horns / reversing alarms	☐	☐	☐	
Correct and equal pressure	☐	☐	☐	Brakes – park / foot / emergency	☐	☐	☐	
Recovery Equipment				Fire extinguisher	☐	☐	☐	
Winch	☐	☐	☐	First Aid kit	☐	☐	☐	
Snatch straps	☐	☐	☐	Maps/GPS	☐	☐	☐	
Hi lift jack / exhaust jack	☐	☐	☐	Other?	☐	☐	☐	
Snatch block	☐	☐	☐	Other?	☐	☐	☐	
Rated shackles	☐	☐	☐	Other?	☐	☐	☐	
Long handled shovel	☐	☐	☐					
Communications								
Satellite phone	☐	☐	☐					
UHF Radio	☐	☐	☐					
Mobile phone charged	☐	☐	☐					
Other?	☐	☐	☐					
Repairs completed	☐	☐	☐					
Operators Name:								
Operators Signature:								

DANGEROUS GOODS SAFETY ACT 2004

Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Determination (No. 2) 2026

Transport of lithium batteries from Maddington and Wattleup to Mt Walton

1. Citation

This determination may be cited as Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Determination (No. 2) 2026.

2. Authority

This instrument comprises of a determination made under the *Dangerous Goods Safety Act 2004* and the *Dangerous Goods Safety (Road and Rail Transport of Non-explosives) 2007*. This instrument also authorises alternative packing and transport conditions for the carriage of damaged or defective lithium batteries in accordance with Special Provision 376 of the Australian Code for the Transport of Dangerous Goods by Road and Rail, Edition 7.9 (Australian Dangerous Goods Code).

3. Definitions

In this instrument:

“controlled venting” means a venting arrangement that permits gradual release of gases from the container headspace while minimising oxygen ingress to the encapsulated battery mass.

“damaged or defective batteries” means batteries liable to produce heat, fire, or emission of gas or vapour under normal conditions of carriage.

“Lithium batteries” means dangerous goods assigned to UN3090 Lithium metal batteries, UN3091 Lithium metal batteries contained in equipment or packed with equipment, UN3480 Lithium ion batteries, UN3481 Lithium ion batteries contained in equipment or packed with equipment, UN3551 Sodium ion batteries and UN3552 Sodium ion batteries contained in equipment or packed with equipment, as listed in the Australian Dangerous Goods Code.

“transport unit” means a vehicle or combination transporting batteries.

4. Purpose

The purpose of this instrument is to:

- a. enable the safe transport of lithium batteries
- b. manage the risk of thermal runaway, fire and gas release during transport
- c. specify enforceable control measures for containment, monitoring and emergency response
- d. facilitate the controlled transfer of batteries to Intractable Waste Disposal Facility, Mt Walton East for disposal or other approved location.

5. Application

This instrument applies to:

- a. Any Lithium batteries currently at 5 Burwash Place, Maddington and 13 Musson Road, Wattleup.
- b. transport undertaken to Intractable Waste Disposal Facility, Mt Walton East for disposal or other approved location.
- c. Hazrad Australia Pty Ltd (ABN 27 626 763 782), including all employees, agents and subcontractors engaged by that company in relation to activities covered by this instrument.

6. Variation to Australian Dangerous Goods Code

6.1 This instrument applies in lieu of compliance with Packing Instructions P911 and LP906.

6.2 Transport must be undertaken in accordance with Special Provision 376 and all conditions of this determination.

7. General duty

The person in control of the transport must ensure that all reasonably practicable measures are taken to prevent:

- a. thermal runaway
- b. fire propagation
- c. pressure build up within containers
- d. uncontrolled release of gases
- e. risk to people, property and the environment

8. Packaging, containment and venting conditions

8.1 Batteries must be transported in steel containers, skip bins, or equivalent non combustible containment units.

8.2 Each container must:

- a. fully contain the batteries and inert material
- b. encapsulate batteries in sand, vermiculite or equivalent inert material
- c. prevent battery movement during transport
- d. prevent battery to battery contact so far as reasonably practicable
- e. be covered but not gas tight
- f. incorporate controlled venting sufficient to prevent pressure build up
- g. maintain structural integrity during normal transport
- h. prevent loss of contents
- i. segregate different battery chemistries as much as reasonably practicable

8.3 Controlled venting must:

- a. allow gradual release of gases from container headspace
- b. prevent pressure accumulation
- c. be arranged so that venting does not create direct airflow through the encapsulated battery mass
- d. be positioned, where practicable, to reduce exposure of persons to released gases
- e. be kept clear of ignition sources

8.4 The following are prohibited:

- a. transport in sealed gas tight containers
- b. transport in open uncovered containers
- c. transport of loose batteries without inert encapsulation and restraint

8.5 Where containers are assessed as containing batteries that present an elevated risk of thermal runaway, fire, or gas generation, the transport must, so far as reasonably practicable, be conducted in accordance with the following:

- a. only one container of such high risk batteries is to be transported on a single transport unit
- b. additional containers must not be transported on the same vehicle as a high risk container unless it can be demonstrated that the additional containers are not high risk and the risks are effectively controlled
- c. the assessment of risk must take into account:
 - i. batteries condition (if known), including evidence of fire damage or instability
 - ii. likelihood of heat generation or gas release during transport
 - iii. effectiveness of packaging, encapsulation and venting arrangements
 - iv. potential consequences of fire or escalation during transport

9. Monitoring and detection

9.1 Prior to transport, each container must be inspected for:

- a. elevated temperature
- b. visible smoke, vapour or gas emission
- c. deformation or swelling
- d. damage to container or vent system

9.2 During transport:

- a. inspections must be carried out at scheduled intervals
- b. container surfaces and vent outlets must be monitored
- c. temperature must be monitored by suitable means
- d. any abnormal condition must trigger immediate response

9.3 At least one escort vehicle must carry thermal imaging capability.

9.4 The Department of Fire and Emergency Services (DFES) must be immediately notified if there is evidence of:

- a. escalating heat
- b. smoke or fire
- c. rapid or sustained gas release
- d. container deformation or structural failure
- e. any load arrangement that increases the consequence of escalation, including carriage of multiple high risk containers

10. Convoy and escort requirements

10.1 Transport must be conducted under convoy conditions.

10.2 The convoy must include:

- a. a lead escort vehicle
- b. a rear escort vehicle

10.3 Escort personnel must be trained in:

- a. lithium battery hazards
- b. emergency response procedures

10.4 The transport route must be pre approved and must, so far as reasonably practicable:

- a. avoid tunnels
- b. avoid high density urban areas
- c. include planned emergency pull over locations suitable for:
 - i. safe stopping of the transport unit
 - ii. establishment of an exclusion zone
 - iii. access by emergency services
- d. be documented and carried in the transport documentation

11. Emergency response

- 11.1 Each transport unit must carry or be supported by:
- a. sand or vermiculite
 - b. fire blankets suitable for lithium battery incidents
 - c. appropriate extinguishers
 - d. personal protective equipment
- 11.2 In the event of overheating, gas release, smoke or fire:
- a. the vehicle must stop immediately at a safe location
 - b. an exclusion zone must be established
 - c. personnel must remain upwind where practicable
 - d. DFES must be notified

12. Operational controls

- 12.1 Prior to transport, containers must be:
- a. assessed as stable
 - b. segregated and documented
- 12.2 During transport:
- a. vehicles must not be left unattended
 - b. communication must be maintained between convoy vehicles
 - c. inspections must be conducted at regular intervals
- 12.3 Drivers must be trained in lithium battery emergency response
- 12.4 Vent related conditions
- a. vent outlets must not be blocked or sealed
 - b. personnel must remain clear of vent outlets
 - c. external stabilisation using sand or blankets may be undertaken if safe

13. Documentation

- 13.1 The following must be carried:
- a. dangerous goods transport document
 - b. emergency response information
 - c. a copy of this instrument
 - d. inspection and monitoring records
 - e. route plan with identified stop locations
- 13.2 The transport document must include:
- a. UN number and proper shipping name
 - b. the statement "Transport in accordance with Special Provision 376"
 - c. reference to this instrument

14. Disposal

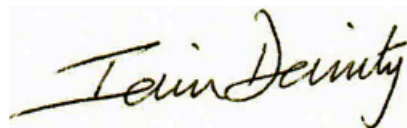
- Upon arrival at Intractable Waste Disposal Facility, Mt Walton East or other approved location:
- a. unloading must be controlled and supervised
 - b. each container is separated from every other container by a distance sufficient to ensure that a dangerous goods incident in one container cannot cause a dangerous goods incident in another container
 - c. containment measures must be maintained until disposal
 - d. batteries must not be unnecessarily handled

15. Compliance

Failure to comply with this instrument may constitute an offence under the Dangerous Goods Safety Act 2004.

16. Duration

This determination applies only to the transport of lithium batteries stored at 5 Burwash Place, Maddington on 12 April 2026 and ceases upon completion of disposal operations unless revoked earlier.



Iain Dainty | Director WorkSafe Petroleum Safety and Dangerous Goods
WorkSafe Petroleum Safety and Dangerous Goods Directorate
30 June 2026

*Chief Dangerous Goods Officer
Western Australia*

Appendix H: Emergency Response Team Contact Details

Emergency response undertaken by Hazrad Australia Pty Ltd, who are an approved emergency responder (AER001042) under the *Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Regulations 2007*.

Hazrad operate a 24 hour emergency response line, **08 9418 4200**

Emergency response for transport to Mt Walton to be coordinated by [REDACTED]
([REDACTED]@[hazrad.com.au](mailto:[REDACTED]@hazrad.com.au)) and [REDACTED] ([REDACTED]@[hazrad.com.au](mailto:[REDACTED]@hazrad.com.au)).



Department of Local Government,
Industry Regulation and Safety
Dangerous Goods Safety

Approved Emergency Responder No.: AER001042

Expiry date: 10 April 2031

CERTIFICATE OF APPROVAL

This is to certify that

Hazrad Australia Pty Ltd

34 Cocos Drive, Bibra Lake WA 6163

**Is an approved emergency responder for dangerous goods transport incidents
for the following dangerous goods:**

Classes/Divisions 2, 3, 4, 5, 6.1, 8 and 9

Marianne Amato

Marianne Amato | Acting Director WorkSafe Petroleum Safety and Dangerous Goods
WorkSafe Petroleum Safety and Dangerous Goods Directorate
13 April 2026
Chief Dangerous Goods Officer
Western Australia