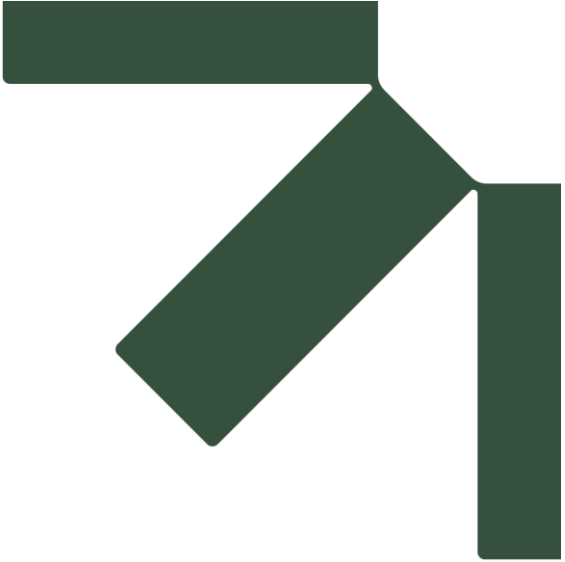




Appendix DD Draft Hazardous Substances and Site Safety Management Plan

Fast-Track Approvals Act 2024 Substantive Application

Hinuera Solar Farm

Harmony Energy NZ #6 Limited

SLR Project No.: 880.016894.00001

19 August 2026



Hazardous Substance and Site Safety Management Plan

Hinuera Solar Farm Fast Track Approvals Application

Harmony Energy NZ #6 Limited

Level 10 The Shortland Centre
55 Shortland Street
Auckland 1010

Prepared by:

SLR Consulting New Zealand

SLR Project No.: 880.016894.00005

19 June 2026

Revision: 1.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	19 June 2026	Lindsay Lutes	Nigel Mather	
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Basis of Report

This report has been prepared by SLR Consulting New Zealand Limited (SLR) on the instructions of Harmony Energy NZ #6 Limited (HENZ, or the Client), in accordance with the agreed scope of work. It is intended to support the Client's application under the Fast Track Approvals Act 2024 and may be relied upon by the Expert Panel and relevant administering agencies for the purposes of assessing the application. While SLR has exercised due care in preparing this report, it does not accept liability for any use of the report beyond its intended purpose. Where information has been supplied by the Client or obtained from external sources, it has been assumed to be accurate unless otherwise stated.

Statement of Qualifications and Experience

Lindsay Lutes – Senior Project Consultant – Land Quality and Remediation, SLR Consulting

I am a Senior Project Consultant – Land Quality and Remediation at SLR Consulting Limited (SLR). SLR is a global environmental and advisory consultancy specialising in sustainability and climate change strategy, planning, environmental management and impact assessment and waste management and remediation. I have been employed at SLR New Zealand since 2025. I previously worked for SLR in Regina, Saskatchewan, Canada from 2021 to 2023.

I hold the qualification of Bachelor of Environmental Science degree from the University of Royal Roads in Victoria, British Columbia, Canada.

I have over ten years of experience in preliminary and detailed site investigations and remediation.

I confirm that, in my capacity as author of this report, I have read and abide by the Environment Court of New Zealand Practice Note 2023, and in particular section 9 the Code of Conduct for Expert Witnesses.

Nigel Mather – Technical Discipline Manager, Environmental Services – SLR Consulting

I am a Technical Discipline Manager – Environmental Services at SLR Consulting Limited (SLR). I have been employed at SLR New Zealand since 2016.

I hold the qualification of Master of Science degree from the University of Auckland.

I have over 20 years of experience covering a broad range of environmental management and risk assessment experience, including contaminated land and groundwater assessment and remediation, consent application and technical peer review, hazardous substances



management and auditing, environmental due diligence and risk assessment (transactional and advisory services), and HSE management systems implementation and auditing.

I confirm that, in my capacity as reviewer of this report, I have read and abide by the Environment Court of New Zealand Practice Note 2023, and in particular section 9 the Code of Conduct for Expert Witnesses.



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Appendices

Appendix A Site Location Plan

**Appendix B Emergency Response Plan and Hazardous Substance Register and
Management Summary**



Acronyms and Abbreviations

BMS	Battery Management System – safety and control system in lithium-ion batteries.
EPA	Environmental Protection Authority (New Zealand)
HSMP	Hazardous Substances Management Plan
HSNO	Hazardous Substances and New Organisms Act 1996
HSW Act	Health and Safety at Work Act 2015
MPDC	Matamata-Piako District Council
PPE	Personal Protective Equipment
SDS	Safety Data Sheet
TBC	To Be Confirmed – information to be filled in when the responsible person or specific details are decided.
UN Number	United Nations Number – a four-digit number identifying hazardous substances during transport.
WES	Workplace Exposure Standards
WMA	Waste Minimisation Act
WRC	Waikato Regional Council



1.0 Introduction

SLR Consulting New Zealand (SLR) has been engaged by Harmony Energy NZ #6 Limited (HENZ, or the Client) to prepare a draft Hazardous Substance Management Plan (HSMP) in support of a Substantive Application under the Fast-Track Approvals Act 2024 for a proposed solar farm located at the corner of State Highway 29 and State Highway 27, Hinuera, within the Matamata-Piako District.

The proposed development includes four land parcels (collectively referred to as the 'site'), as detailed in **Section 1.3**. Refer to the Site Location Plan provided in **Appendix A**.

1.1 Proposed Development

The Hinuera Solar Farm is to be located across six Records of Title, covering a total area of approximately 150 hectares. The site is situated at the intersection of State Highway 29 and State Highway 27, approximately 10 km south of Matamata.

The proposed solar farm will consist of approximately 170,000 photovoltaic (PV) modules mounted on either fixed-tilt or single-axis tracking systems. The modules will be arranged in rows across the site.

Electricity generated by the PV arrays will be converted from direct current (DC) to alternating current (AC) via either a central inverter or string inverter configuration. The AC output will be stepped up to 33 kV and exported to the Powerco substation located at the corner of Lake Road and State Highway 27 via underground cabling.

The BESS component will be DC-coupled and comprise up to 90 containerised battery units, each connecting via DC-to-DC converters to the central inverter stations, or connected to the transformers in the case of a string inverter configuration. The BESS will provide up to 400 MWh of storage capacity, enabling energy dispatch during peak demand periods and supporting grid stability.

Supporting infrastructure includes a switching station (up to 80 m²), an operations and maintenance (O&M) building (180 m²), a storage building (180 m²), and up to five storage containers (28 m² each). The site will be enclosed by a 2.4 m high security fence. The proposed indicative site layout is provided in **Appendix A**.

1.2 Purpose

This draft HSMP outlines a preliminary framework for managing hazardous substances expected to be on site during the construction and operation of the proposed solar farm development. It is intended to support the fast-track consent application process and will be updated and finalised once substance-specific information is confirmed.

1.3 Site Details

Site identification details are provided in **Table 1**. Refer to the Site Location Plan provided in **Appendix A**.

Table 1: Site Identification Details

ASPECT	DETAILS
Site Location	Corner of State Highway 29 and State Highway 27, Hinuera



Legal Descriptions	Section 1 Block X Tapapa Survey District & Lot 1-2 Deposited Plan South Auckland 83767 Lot 1 Deposited Plan 11591 Lot 2 Deposited Plan 11981 Part Lot 3 Deposited Plan 11891 and Lot 2 Deposited Plan 473263
Government Authority	Local Authority: Matamata-Piako District Council (MPDC) Regional Authority: Waikato Regional Council (WRC)
Site Area	Approximately 153.4 hectares (Ha)

2.0 Legislative and Environmental Framework

2.1 Environmental and Legislative Requirements

This HSMP has been developed to comply with the following key legislation and guidelines:

- Hazardous Substances and New Organisms Act 1996 (HSNO)
- Health and Safety at Work Act 2015
- Resource Management Act 1991
- Waste Minimisation Act 2008
- Relevant EPA Notices (e.g., Hazard Classification, Hazardous Property Controls)
- Local council and regional requirements including Waikato Regional Council guidance and the Matamata-Piako District Waste Management Plan

It also aligns with WorkSafe New Zealand's Code of Practice for the Management of Hazardous Substances in the Workplace and Workplace Exposure Standards.

3.0 Hazardous Substance Management

3.1 Inventory of Hazardous Substances

An initial inventory of hazardous substances likely to be used or stored on-site has been prepared based on the proposed development and expected infrastructure. This includes substances required for site operations such as:

- Lithium-ion batteries.
- Transformer oils and ethylene glycol coolant.
- Diesel and petrol for construction plant, vehicles, and backup generators
- Lubricants, oil, and grease for moving parts, machinery, and rotating equipment.
- Cleaning solutions for PV modules and equipment.
- Herbicides or pesticides for site management to maintain clear solar array zones.
- Small quantities of paints, adhesives, welding gases, or similar consumables may also be present during construction.



The inventory summarised in **Appendix B** will be refined as the design progresses and updated in the final HSMP prior to commencement of proposed development, in accordance with the requirements of the *Health and Safety (Hazardous Substances) Regulations 2017*.

3.2 Storage and Segregation

Hazardous substances must be stored in a manner that minimises risk to people, property, and the environment in accordance with the *Health and Safety at Work (Hazardous Substances) Regulations 2017* and the *Hazardous Substances and New Organisms Act 1996 (HSNO Act)*. This includes ensuring proper containment, ventilation, and physical separation of incompatible substances, as outlined in WorkSafe's *Code of Practice for the Management of Hazardous Substances in the Workplace* and the EPA's *Hazard Classification and Hazardous Property Controls Notices*. Storage areas will be clearly signposted, secure, and accessible only to authorised personnel. Substances will be segregated based on hazard classification (e.g. flammable, corrosive, oxidising), and appropriate spill kits and personal protective equipment (PPE) will be available nearby.

The table in **Appendix B** outlines proposed storage locations and key segregation requirements based on known and anticipated Site uses.

3.3 Risk Management and Controls

Effective risk management is essential to ensure the safety of workers, the public, and the environment. Hazards associated with hazardous substances will be identified, assessed, and controlled in accordance with the *Health and Safety at Work Act 2015* and the *Health and Safety at Work (Hazardous Substances) Regulations 2017*. Control measures will follow the hierarchy of controls, including elimination, substitution, engineering controls, administrative controls, and personal protective equipment (PPE) to reduce risk to as low as reasonably practicable (ALARP). All risks will be regularly monitored, and appropriate corrective actions will be taken to mitigate any identified hazards. The HSMP will be reviewed periodically and updated to account for any changes in operations or hazardous substances.

The table in **Appendix B** outlines the key hazardous substance risks and the corresponding control measures.

3.4 Purchasing and Supply Chain Controls

Hazardous substances will only be purchased through approved suppliers to ensure compliance with:

- Labelling and packaging standards under the HSNO Act
- Supplier provision of up-to-date Safety Data Sheets (SDS)
- Compatibility with existing Site controls and storage infrastructure

All purchases will be recorded in a centralised hazardous substances register maintained by the Site Manager and reviewed monthly to ensure the Site only stocks quantities necessary for immediate operations, reducing storage risks.

3.5 Hazardous Substance Labelling and Signage

All containers of hazardous substances will be clearly labelled in accordance with the *Hazardous Substances (Labelling) Notice 2020*. This includes:

- Substance name



- Hazard classification
- Pictograms and signal words (e.g., Danger, Warning)
- Precautionary statements

Storage areas will have visible signage indicating the type of hazardous substances stored, applicable hazard symbols, and relevant emergency response instructions. Signage will comply with AS/NZS 1319 and be maintained in good condition.

3.6 Site Plan and Storage Locations

A Hazardous Substances Location Plan will be prepared as part of the final HSMP. This plan will show:

- Storage locations for all hazardous substances (e.g., transformer oil, coolant, etc.)
- Spill kit and emergency response equipment placement
- Site access and evacuation routes
- Fire extinguisher and first aid station locations

The plan will be displayed in key locations including the Site office and near each designated storage area and will be included in the Site induction material.

3.7 Safety Data Sheets

Safety Data Sheets (SDS) provide critical information on the safe handling, storage, and emergency response for hazardous substances. SDSs will be obtained and kept on file, along with the hazardous substance inventory, for all hazardous substances used or stored on-site. These must be readily accessible to all staff and contractors, particularly in storage areas and work zones. The SDS library will be reviewed regularly and updated as new substances are introduced. The table in **Appendix B** summarises the initial SDS management approach, including expected storage locations, review frequency, and responsible personnel.

4.0 Roles, Responsibilities and Training

4.1 Roles and Responsibilities

Clear roles and responsibilities are essential to ensure hazardous substances are managed safely and in compliance with legislation requirements. **Table 2** outlines the key personnel assigned to oversee handling, storage, and disposal of hazardous substances. These responsibilities will be further defined and formalised in the final HSMP prior to commencement of proposed development.

Table 2: Roles and Responsibilities for Hazardous Substance Management

Role	Responsibility	Personnel
The Client / Developer	• Ensure hazardous substance risks are considered during planning and design. • Appoint competent personnel with adequate resources. • Support the development and implementation of the HSMP.	Harmony Energy NZ #6 Limited



Role	Responsibility	Personnel
	- Approve purchases only with appropriate controls in place. - Ensure compliance with regulatory and consent requirements.	
Site Manager(s)	- Implementation of the HSMP - Hazardous substance storage and handling - Staff training and supervision - Safety and emergency response - Monitoring and reporting - Coordination with Environmental Manager - Permit and regulatory compliance	TBC
	- Development and enforcement of safety procedures - Provide training and awareness - Lead risk assessment and hazard identification - Oversee health monitoring and reporting - Lead incident investigations - Ensure regulatory compliance - Oversee personal protective equipment (PPE) - Collaboration with Site and Environmental Manager(s)	TBC
	- Ensuring compliance with environmental regulations and standards. - Overseeing spill containment and response. - Managing environmental monitoring and reporting. - Ensuring proper waste management practices to minimize environmental impact.	TBC
	- Oversee safe storage and access to hazardous substances used in kitchens and facility areas. - Maintain SDSs availability in relevant locations	TBC
	- Ensure SDSs for operational chemicals (e.g. transformer oils, coolants, diesel and petrol, herbicides/pesticides, paints, aerosols, cleaning agents, etc.) are accessible and up to date. - Train maintenance staff on correct handling procedures.	TBC
All Site Workers	- Follow procedures for hazardous substance handling and storage. - Use PPE correctly and as instructed. - Report spills, leaks, or damaged containers immediately. - Participate in training and Site inductions. - Maintain good housekeeping and avoid unauthorised access to substances.	All Site Workers

Note: Specific role assignments may be refined in the final HSMP based on final Site operations and staffing.



4.2 Training and Supervision

All personnel handling hazardous substances will receive appropriate training to ensure they understand the risks and know how to respond safely. This includes training on the safe use, storage, and disposal of hazardous substances, as well as emergency response procedures. Regular refresher courses will be provided to ensure knowledge remains up to date, especially when new substances are introduced. Supervisory staff will ensure that safety procedures are followed on-site and will provide ongoing oversight and mentoring to workers. Training records will be maintained for all employees and contractors involved with hazardous substances.

Table 3 below summarises the training and supervision requirements for different roles and hazardous substances on-site.

Table 3: Training and Supervision Requirements

Role	Training Requirements	Supervisory Role	Frequency of Training / Review
Site Manager	- General hazardous substance safety - Emergency response - Risk assessment and control measures	- Oversee all hazardous substance handling and storage - Conduct safety audits and inspections	Annual training and refresher courses
	- Hazardous substance safety - Spill response - PPE use - SDS interpretation	- Supervise safe work practices - Conduct regular safety audits and training	Bi-annual refresher training and annual drills
Maintenance Supervisor	Equipment maintenance and safety	Oversee equipment checks	Quarterly refresher training
Site Workers / Contractors	- Safe handling of chemicals - Emergency response - Use of PPE	Follow training for safe chemical handling and report unsafe conditions	- Initial training at onboarding - Annual refresher courses

5.0 Emergency Response and Incident Management

An effective emergency response plan is essential to minimise the impact of hazardous substance incidents, such as spills, leaks, or exposure. All employees and contractors must be familiar with emergency response procedures, including evacuation protocols, spill containment, first aid, and reporting mechanisms. Emergency response equipment, such as spill kits, fire extinguishers, and first aid supplies, will be readily available at key locations. The emergency response plan will be reviewed regularly, and drills will be conducted to ensure preparedness in the event of an incident.

A draft Emergency Response Plan is presented in Appendix B. This will be updated once project details have been finalised and prior to commencement of the development. Also in **Appendix B** is a table which outlines the emergency response actions for hazardous



substances and highlights the equipment needed, personnel responsible, and how often the procedures should be reviewed or drilled.

6.0 Waste Management and Disposal

Proper disposal of hazardous substances is critical to preventing environmental contamination and ensuring compliance with regulatory requirements. Hazardous waste will be segregated, stored, and disposed of in accordance with New Zealand's environmental regulations, including the *Waste Minimisation Act 2008* and local council guidelines. Only licensed contractors will be used for hazardous waste disposal, and disposal methods will be selected based on the type of substance (e.g., chemical, biological, or general waste).

Records of all waste disposal activities will be maintained, including details on the quantity, type, and method of disposal.

The table in **Appendix B** outlines the disposal procedures and methods for hazardous substances used on-site.

7.0 Monitoring, Review, and Continuous Improvement

7.1 Review and Audit

To ensure the effectiveness and regulatory compliance of the HSMP, regular reviews and audits will be conducted. The HSMP will be reviewed at least annually or earlier if there are significant changes to:

- The types or quantities of hazardous substances used;
- Regulatory requirements; or
- Site operations and procedures.

Audits may be conducted internally or by external parties to verify compliance with both the HSMP and relevant environmental and health and safety legislation. Any deficiencies identified during audits or reviews will be documented, and corrective actions will be implemented promptly.

7.2 Recommendations

Based on a review of this draft HSMP, the following recommendations are made to support its finalisation and the fast-track referral application:

- **Finalise the HSMP:** Review all sections to confirm accurate identification of hazardous substances, proper handling procedures, and full compliance with applicable regulations. Ensure all responsibilities are clearly assigned.
- **Regular Updates:** Maintain the HSMP as a living document. Update it whenever new hazardous substances are introduced or if there are changes to legislation, Site operations, or roles.
- **Clarify Emergency Procedures:** Ensure emergency protocols are tailored to the specific hazardous substances and risks on-site and are feasible to implement.
- **Monitor Compliance:** Establish a system for ongoing compliance monitoring, including internal audits and regular inspections of hazardous substance handling and storage.



- **Stakeholder Involvement:** Involve all relevant stakeholders, including the Client, Site managers, and workers, in the review and implementation of the HSMP to promote understanding, accountability, and safe practices.

8.0 Report Status

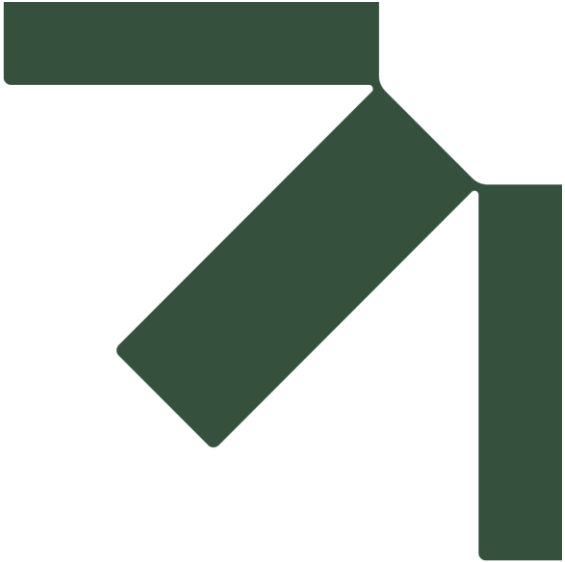
This report has been approved by Nigel Mather, a Suitably Qualified and Experienced Practitioner (SQEP) as outlined in the MfE Contaminated Land Management Guidelines No.5 – Site Investigation and Analysis of Soils, 2021 (CLMG No.5) and the Resource Management (NESC) Regulations, 2011. Nigel is also experienced in managing risks associated with the storage, handling, use, and disposal of hazardous substances.

This report is intended to support Harmony Energy NZ #6 Limited in preventing and managing adverse effects associated with hazardous substances which may be used as part of operations at the Site.

9.0 References

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Appendix A Site Location Plan

Hazardous Substance and Site Safety Management Plan

Hinuera Solar Farm Fast Track Approvals Application

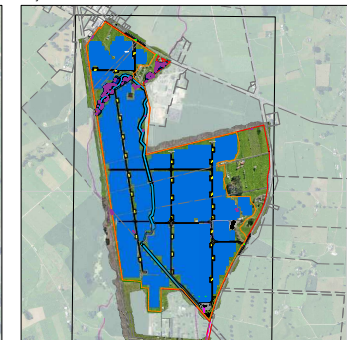
Harmony Energy NZ #6 Limited

SLR Project No.: 880.016894.00005

19 June 2026



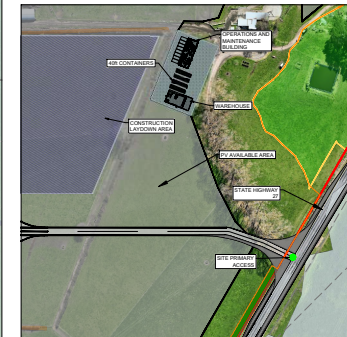
Project Location



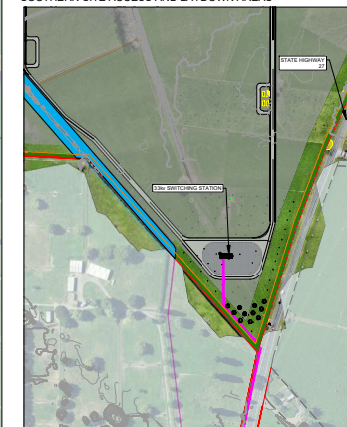
SITE ACCESS AND NORTHERN LAYDOWN AREA



EASTERN ACCESS POINT



SOUTHERN SITE ACCESS AND LAYDOWN AREAS



Legend	
	Lot Boundary
	Available PV Module Area
	13 kV Un-grounded Cable
	Security Perimeter Fence
	Site Access
	Water Tank
	PV Module
	ITS - Inverter Transformer Station
	SCSS
	Low Quality Wetland
	Contractor's Camp
	Laydown Area
	Screen Planting
	Stream Riparian Planting
	Buffer Riparian Planting
	PV Module Area



Notes	
System Specifications	
Pin1 Size	1100 Mils/In
Pin1 Size (MBC)	75 Mils
Module Specifications	
Type	Tagmat II-TYPE
Quantity	100,000
Pin1	825W
Insulator Specifications	
Type	Bergins SS 3482
Quantity	~30
ACU ₁₀₀	~103 MVA
BESS Specifications	
Type	Tagmat
Quantity	40 BESS Units
BESS ₁₀₀	4-A BESS
Mounting Gear Specifications	
Type	Tagmat System
Quantity	7500
Pin1	0.25in
Connection Specifications	
Point of Connection	Minara Process
Connection	22.8V

802	20-05-20	Concept Design	802
Rev	Date	Description of changes	Rev



Project Title

HINUERA

Discussion Title _____

PV MODULE AREAS

Drawing No.	Revision
HIN-02.00	R0

Crafted By	Designed By

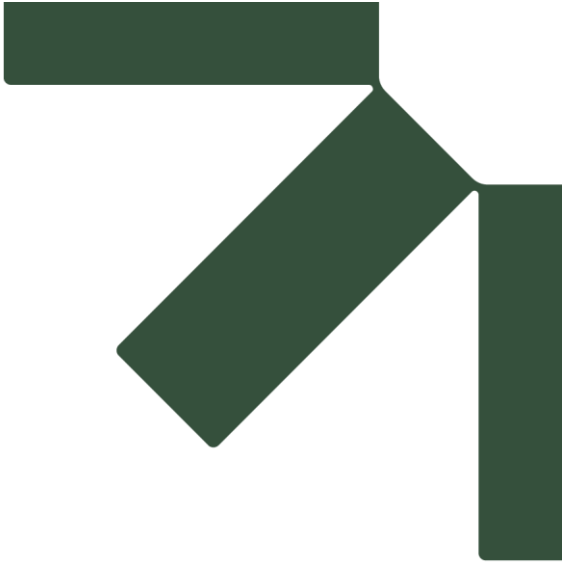
	DJ	RDP
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Appendix B Emergency Response Plan and Hazardous Substance Register and Management Summary

Hazardous Substance and Site Safety Management Plan

Hinuera Solar Farm Fast Track Approvals Application

Harmony Energy NZ #6 Limited

SLR Project No.: 880.016894.00005

19 June 2026



Powering a
Sustainable
Future

HARMONY ENERGY

XXXXXXX

**BATTERY SAFETY STORAGE MANAGEMENT
PLAN**

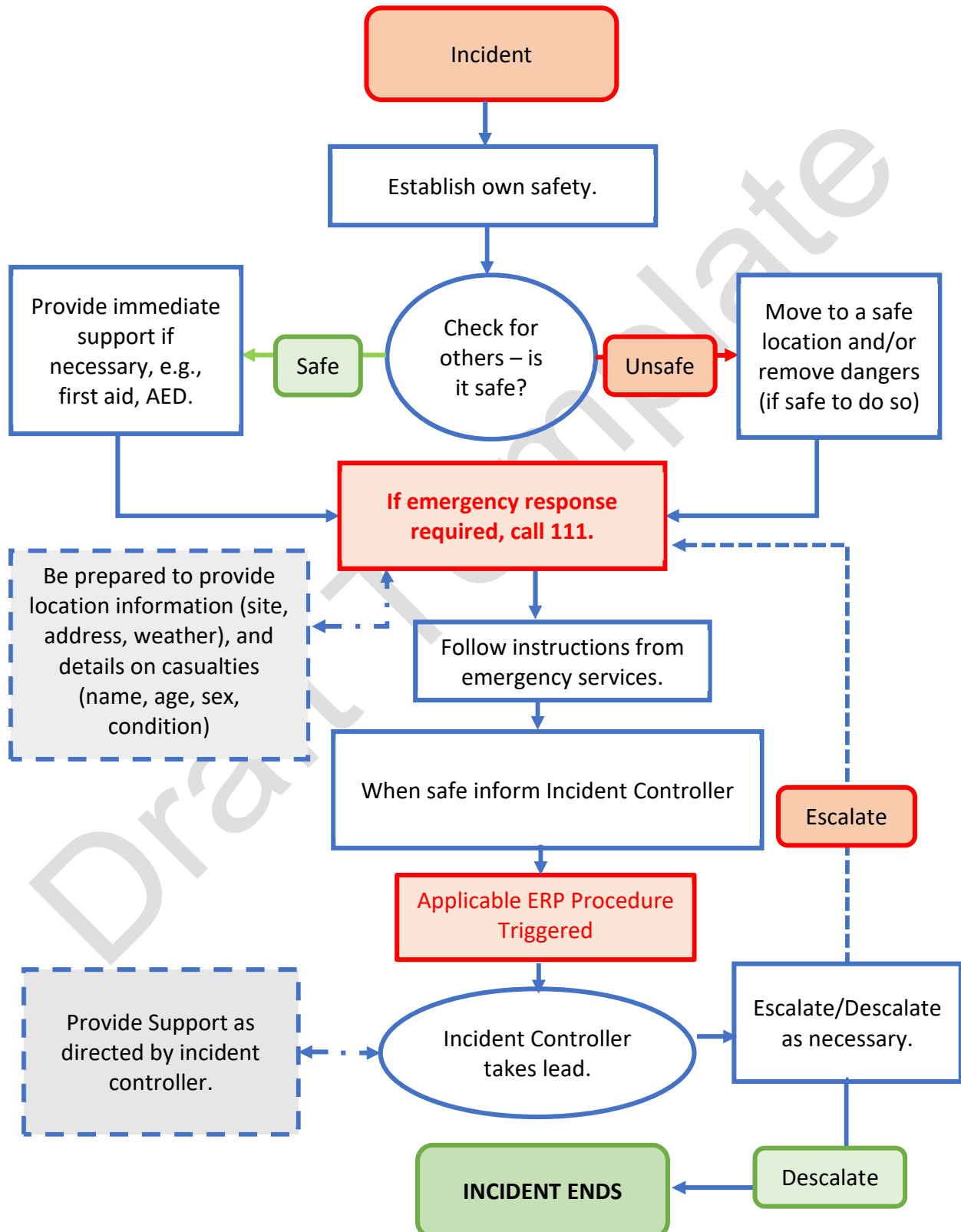
General Site Information	
Address	

Site Specifics	
Max Voltage	
System Energy (kWh)	
System Real Power (kW)	
Number of BESS Units	
Number of Transformers (MVA)	
Battery Supplier	
Battery Model	
Battery Chemistry	

EMERGENCY CONTACT DETAILS		
Accident/Emergency/Police	111	
Nearest A&E Hospital		
DNO		
Original Equipment Manufacturer (OEM)		
Site Operator		
Site Asset Manager		
Security Controller – EMCS		
Keyholder – Risk Management Security		

Immediate Actions in the Event of an Emergency

In the event of an emergency contact 111.



Introduction

This Battery Safety Storage Management Plan (BSSMP) has been prepared by Harmony Energy Limited (Harmony), to document key emergency response procedures at the site.

The document has been prepared in consultation with Fire and Emergency New Zealand and will be regularly reviewed and updated in light of relevant industry updates on Battery Energy Storage Systems (BESS) fire safety and emergency response planning. This document covers the following;

- How the fire service will be alerted,
- A facility description, including infrastructure details, operations, number of personnel, and operating hours,
- A site plan depicting key infrastructure: site access points and internal roads; firefighting facilities
- Details of emergency resources, including fire detection and suppression systems and equipment; gas detection; emergency warning systems; communication systems; personal protective equipment; first aid,
- Up-to-date contact details for facility personnel, and any relevant off-site personnel that could provide technical support during an emergency,
- A list of hazardous substances stored on site,
- Site evacuation procedures, and,
- Emergency procedures for all credible hazards and risks.

Responsibilities

Harmony accepts overall responsibility for the implementation of the plan. In the event of an incident, the nominated Incident Controller will take the lead coordination role.

However, any personnel affected by an emergency should act independently of Incident Controller instructions to make themselves safe and call emergency services, in the event of a serious incident.

When the site is unmanned and the security system armed, EMCS (the Security Controller) will act as the Incident Controller, although this responsibility will be transferred to the Asset Management Team when safe to do so. During scheduled works (and when the security system is disarmed), the Site Asset Manager will act as the Incident Controller.

The Site Asset Manager will:

- Prepare, issue and update the BSSMP.
- Ensure all service providers and contractors have received, and comply, with the ERP.
- Maintain a log of all workers on site.
- Record sign in/sign out times and trigger incident specific procedure if contact lost with worker(s).
- Assume role as Incident Controller during scheduled works onsite.
- Coordinate and liaise with the Incident Controller (Security Controller) outside of scheduled works.
- Provide support and assistance during the incident.
- Take the lead with Site Owner for any media liaison.
- Share any findings and lessons learned.

Security Controller will:

- Provide 24/7/365 support to take emergency calls and take immediate control of an incident.
- Send out a Keyholder if an incident occurs.
- Handover to the Site Manager who will assume control as the Incident Controller.
- Inform the ISP/OEM if incident in/near BESS – determine who best to take lead.
- Check if incident reported to Emergency Services and if not report as required.
- Notify and liaise with Site Manager as incident proceeds.
- Follow and apply incident specific procedure.
- Provide primary liaison with Emergency Services.
- Monitor & review incident progress – escalate/de-escalate as necessary.
- Maintain an action log of contacts received, and actions taken.
- Cooperate and share incident details with Site Manager.

Keyholder will:

- Be able to attend site within an hour of receiving notice.
- Attend site in the event of a fire alarm (and no visible fire on CCTV) in order to officially declare a false fire alarm.
- Attend site in the event of criminal activity being spotted.

Harmony Energy Battery Safety Storage Management Plan

- Attend site in the event of an emergency to help coordinate and monitor events (boots on the ground quickly).

The OEM will:

- Take immediate control of the BESS and workers under their control.
- Notify Emergency Services and the Incident Controller of incident.
- Provide remote operation of the BESS to enable shut down in an emergency.
- Execute rescue/evacuation plans from a BESS, when workers are under its control onsite.
- Liaise with Site Manager to ensure sufficient emergency equipment available onsite.
- Ensure all contractors appointed are made aware of site and BESS specific ERP.

All Workers will:

- Be familiar with their own company's procedure on emergency response and advise the Site Asset Manager if there are any discrepancies in comparison to this ERP.
- Take care of themselves and colleagues - never intervene unless safe to do so.
- Familiarise themselves with the ERP and essential actions to take.
- Correctly use equipment and follow procedures in accordance with training.

Facility Description

Design Objectives

Safety Objectives

Site and System Layout

Hazardous Substances

BESS Operation

Control Room

Monitoring

Security

Maintenance

Draft Template

Fire Management System

Draft Template

Incident Control Procedure

The following procedure sets out the steps the Incident Controller should follow when notified of any incident. The sequence is indicative and may change according to the dynamic situation of the event.

Step	Action
1.	Incident Notified: Site Asset Manager or Security Controller to assume role of Incident Controller (IC) and proceed as below:
2.	Establish immediate actions taken: Check & confirm actions taken on site. • Individual(s) have established own safety • Provided immediate assistance to Injured Person (IP) – if safe • Emergency Services Contacted?
3.	Obtain details of incident • Casualty(s): Name/Age/Time of incident/Condition • Location: Site name/BESS Nos/Grid-W3W locator • Other info: Nature of emergency/Immediate hazards/Type of First Aid Required
4.	Support onsite response: Provide immediate support; maintain contact with site; check essential first aid/rescue etc. commenced
5.	Contact Emergency Services: If required, contact Emergency Services – 111. Provide details of incident (See Step 3.) & any additional information on site access details & site hazards. Keyholder to meet at site entrance
6.	Contact OEM: Provide details as per Steps 1-5. If in/near BESS – confirm OEM/ISP will lead response and if will act as IC
7.	Contact Site Asset Manager (if not already Incident Controller): Provide details as per Steps 1-5. Commence Step 13 if major incident.
8.	Shutdown: Ensure any asset presenting ongoing risk is shutdown or isolated. BESS/HV/Services/Utilities. Contact DNO; HV contractor, service provider as required.
9.	Exclusion Zone: If needed (e.g. any major incident; fire; serious injury) establish an exclusion zone. Use available equipment as required.
10.	Head count: IC along with Site manager and OEM/ISP/Contractors on site to establish all person accounted for. Enact Loss of Person Procedure if not, including employer.
11.	Apply Incident procedure: IC to coordinate and apply applicable Incident Procedure. May be changed at direction of Emergency Services &/or Site Owner (Site Asset Manager).
12.	Crisis Management Plan: Site Asset Manager to enact Crisis Management protocol as required (e.g. Media). SM to inform other parties as necessary e.g. Landowner.
13.	Monitor & Review: IC along with SM to monitor status of incident along with Emergency Services.
14.	Dynamic Assessment: On site personnel to liaise with IC & Site Asset Manager to dynamically assess status if incident. Escalate/Deescalate as required.
15.	Standdown: When all personnel and site scene deemed safe immediate incident response phase can stand down.
16.	Incident ends: IC & Site Manager to commence post incident protocols.
17.	Reporting & Investigation: Site Manager to coordinate and lead investigation(s).

Incident Specific Procedures

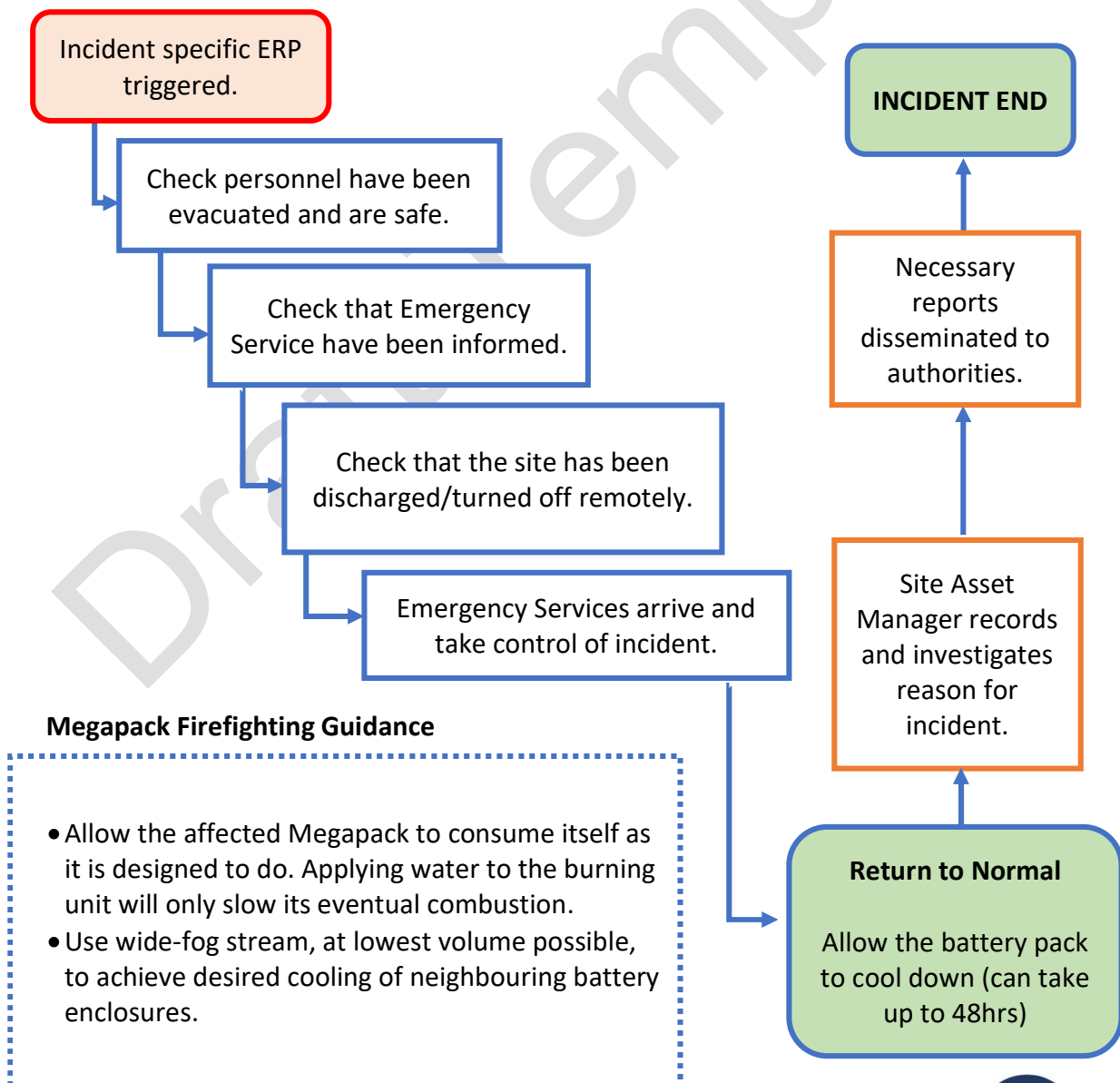
The following Standard Incident Procedures (“SIP”) are to support the Incident Controller (“IC”) in managing specific events. They present an indicative sequence and check list to support the IC in managing and coordinating the incident. Due to the dynamic nature of events, the precise sequence and scope may vary. In addition, specific direction may be given by Emergency Services.

Central principles common to most of the events are:

1. **Scene Safety:** Ensure all persons on site or at risk are kept safe.
2. **Emergency Service Notification:** Early notification of incident to Emergency Services if needed.
3. **Immediate Incident Handling:** Supporting onsite personnel to manage the incident.
4. **Liaison/Handover to Emergency Services:** As directed by Emergency Services.
5. **Returning to Normal:** When safe to do so, returning site to operating conditions.
6. **Reporting:** Notification/reporting to external agencies.
7. **Investigation:** Instigation of incident investigation and lesson learned review.

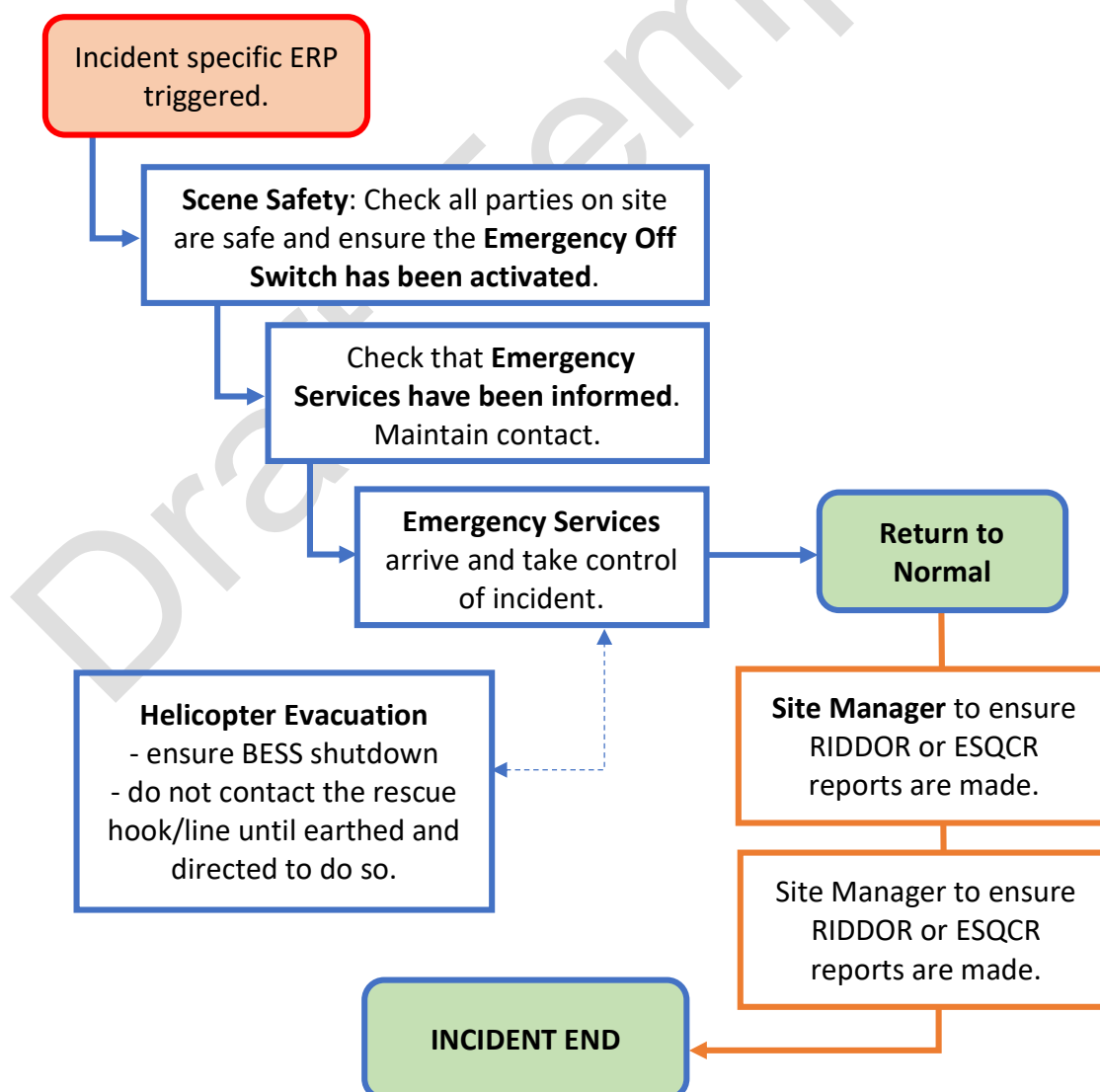
Fire/Explosion (Catastrophic)

Scope	Catastrophic equipment/asset failures with potential to cause serious injury/death and/or severely impact on operational performance and integrity of BESS/site. Scale has potential to necessitate involvement of emergency services. Examples include: - BESS Fires/Explosions. - Substation/Transformer Fires/Explosions - Catastrophic lightning strikes If any doubt on nature of the incident - where any risk of harm to workers or the public is significant – always adopt a precautionary approach. Note: even initially contained fires have potential to escalate.
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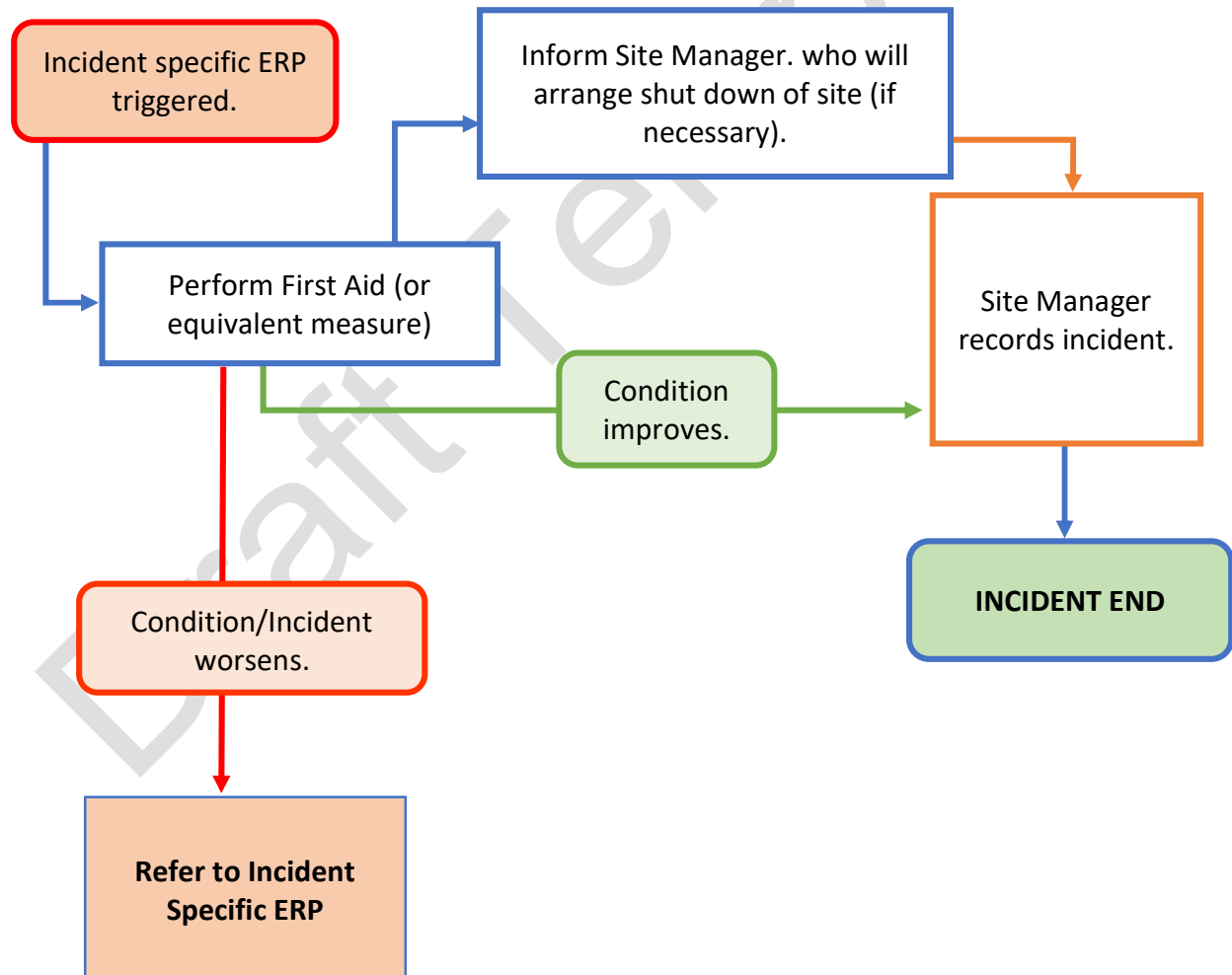
Serious Medical/Personal Injury

Scope	Major medical incident necessitating support of Emergency Services and/or HSE. Examples include: - Fatal Accidents. - Major Trauma (Catastrophic Bleed/Amputations/Serious Burns). - Head/Spinal Injuries. - Acute Medical (Cardiac arrest/Heart Attack). - Asphyxiation. - Shock/Anaphylaxis. - Unconscious Casualty. If any doubt on nature of injury, always adopt a precautionary approach and inform Emergency Services.
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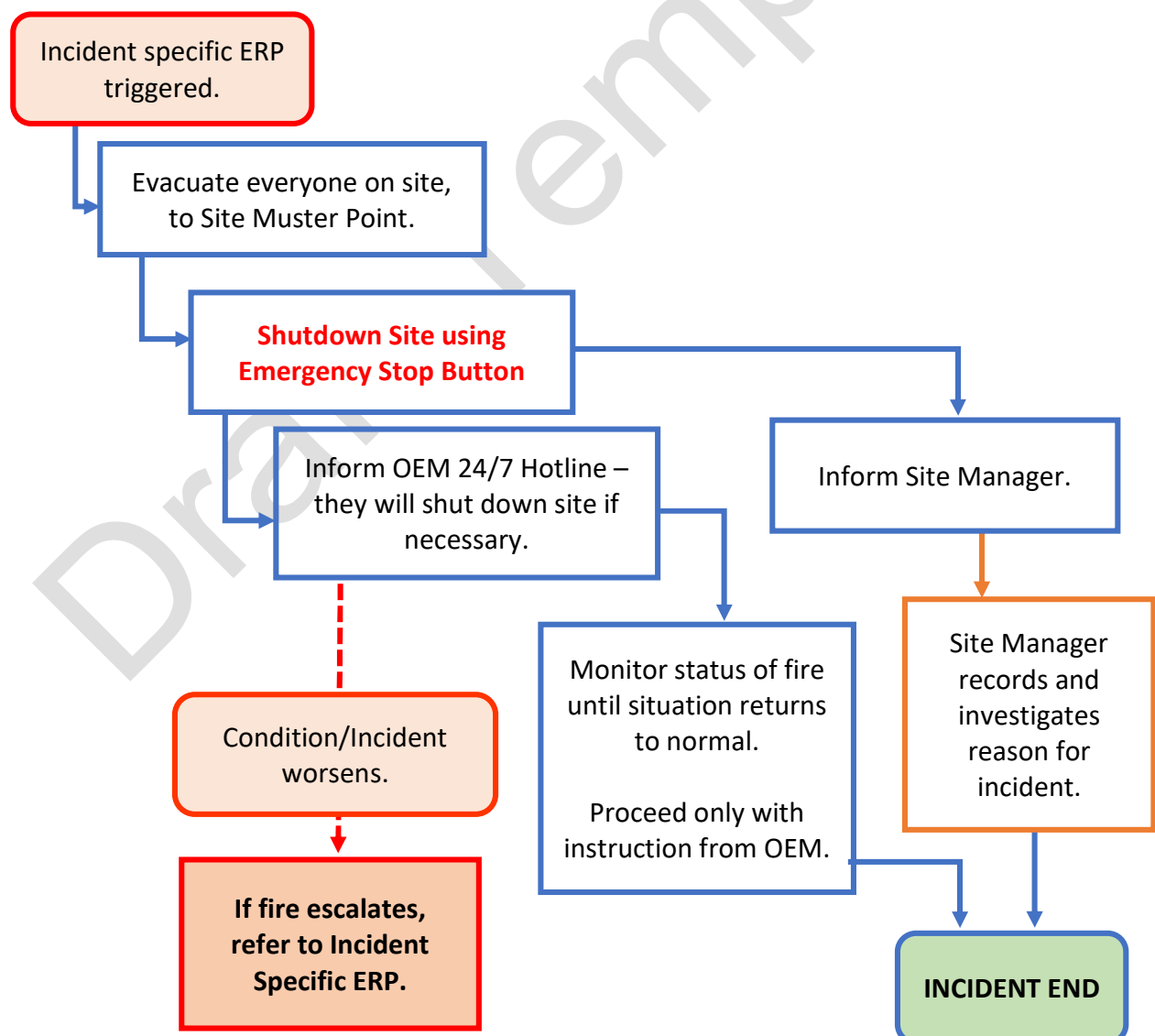
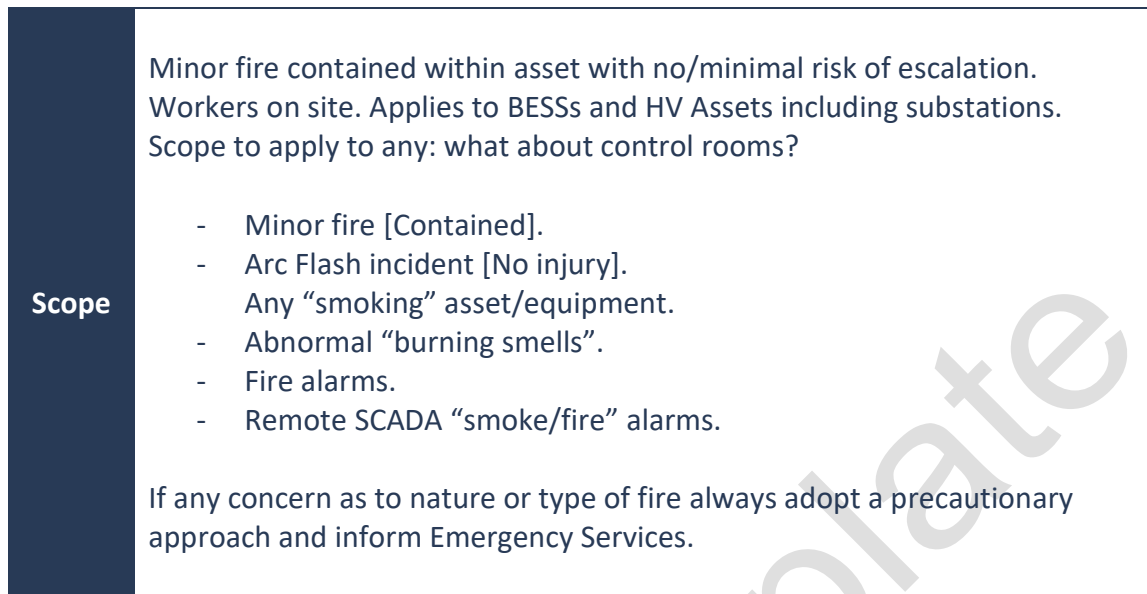


Minor Injury (Involving First Aid, Not Emergency Services)

Scope	Minor first aid medical incident manageable by onsite teams & resources. Examples include: - Minor cuts/bruises. - Sprains/strains. - Fatigue. - Cold/Heat stress (early stages). - Minor burns. - Simple fractures (e.g. finger). If any doubt on nature of injury – always adopt a precautionary approach and inform Emergency Services.
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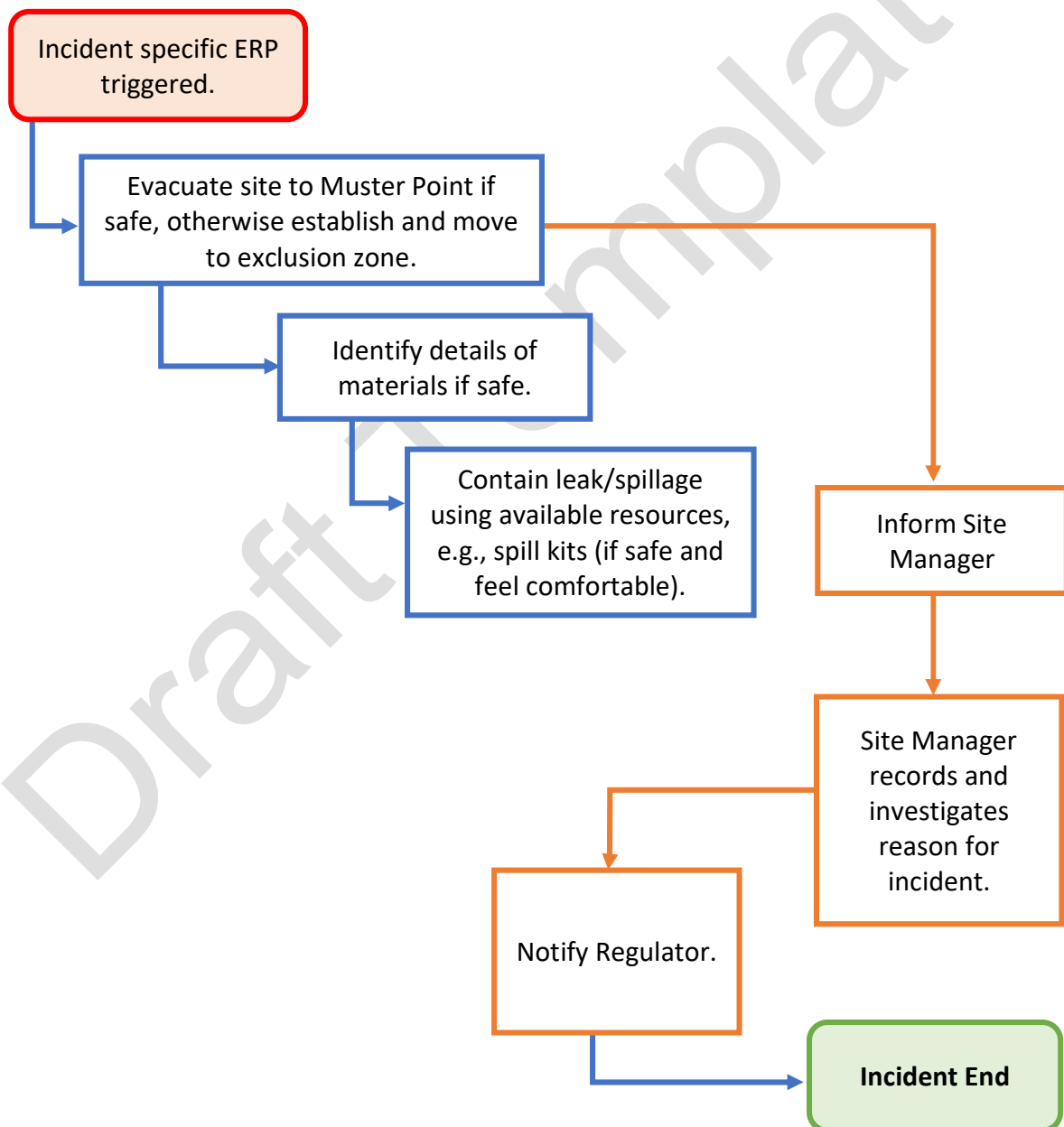


Fire/Explosion (Minor)



Pollution/Spillage

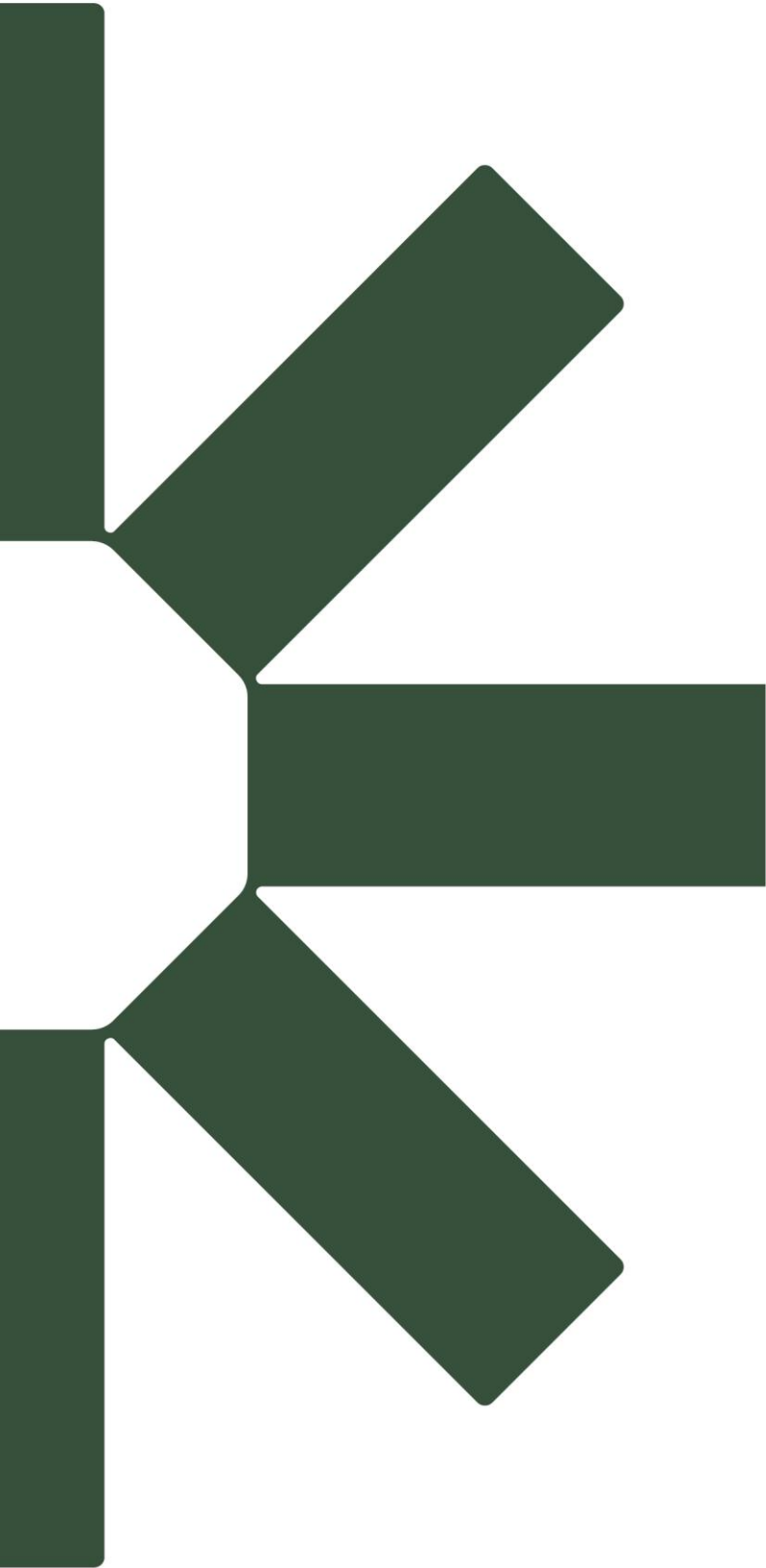
Scope	Any loss of containment of any hazardous material with potential to cause environmental harm. Typically resulting from: - Leaks from BESS. - Leaks/escape from HV assets. - Vehicle incidents (fuel/oil leaks). - Spillage of stored consumable materials (oils/lubricants).
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Appendix B Hazardous Substance Register and Management Summary

Preliminary Inventory of Hazardous Substances						Storage and Segregation				Risk Management and Controls				Safety Data Sheets (SDS)			Emergency Response				Waste Management and Disposal					
Substance	Quantity	Location	UN Number	HSNO Class	SDS Available and Location	Storage Location	Segregation Requirements	Spill Containment	Access Restrictions	Potential Risks	Control Measures	Responsible Person	Monitoring / Review Frequency	Supplier	SDS Review Frequency	SDS Responsible Person	Emergency Response Actions	Required Equipment	Emergency Responsible Person	Emergency Review Frequency	Disposal Method	Disposal Contractor	Regulatory Compliance	Disposal Responsible Person	Disposal Review Frequency	
Batteries and Related Storage - Solar Farms																										
Lithium-ion battery (installed)	TBC	Installed equipment	UN3481	9.1B	Yes (TBC)	Equipment Housing	Separated from flammables	N/A (built-in)	Restricted	Fire hazard, thermal runaway	BMS, ventilation	TBC	Annually	TBC	Annually	TBC	Isolate, use Class D extinguisher	Class D extinguisher	TBC	Annually	Tech disposal	TBC	HSNO, WMA	TBC	Annually	
Lithium-ion battery (standalone)	TBC	Storage areas	UN3480	9.1B	Yes (TBC)	Battery Store	Isolated, ventilated	Fire-proof cabinet	Authorised staff	Fire/explosion	Storage limits, training	TBC	6 monthly	TBC	Annually	TBC	As above	As above	TBC	Annually	Certified e-waste	TBC	HSNO, WMA	TBC	Annually	
Damaged lithium-ion battery	Variable	Storage / disposal	UN3090 / 3480	9.1B, Special Provisions apply	Yes (TBC)	Quarantine container	Isolated, cool area	Fire-resistant bin	Trained staff only	Fire, toxic fumes	Special containment	TBC	Monthly	TBC	Annually	TBC	Isolate, evacuate, notify authority	Fire blanket, PPE	TBC	6 monthly	Specialist contractor	TBC	HSNO	TBC	Annually	
Waste batteries (general mix)	Variable	Waste facility	Varies	Varies	Yes (TBC)	E-waste bin	Sorted by type	Secure bin	Restricted	Leaks, short circuit	E-waste protocol	TBC	Monthly	TBC	Annually	TBC	Contain and dispose	PPE	TBC	Annually	Tech recycler	TBC	HSNO, WMA	TBC	Annually	
Fuels and Gases - Solar Farms																										
Transformer Oil	155,000 L	Generators (built-in tanks)	UN1202	6.1E; 9.1C	Yes (TBC)	Bunded tanks	Away from oxidisers, drains, waterways, sewers, basements or confined areas	Bunded tanks	Restricted	Spills, fire	Tank inspection, signage	TBC	Quarterly	TBC	Annually	TBC	Spill kit, isolate ignition, extinguish with foam	Absorbents, PPE, drain covers; Class B extinguisher	TBC	Annually	Used oil contractor	TBC	HSNO, EPA	TBC	Annually	
Ethylene Glycol	48,600 L	Installed Equipment	UN3082	6.1D; 6.9B	Yes (TBC)	Bunded tanks	Away from drains, away from incompatible materials (aluminium and zinc)	Bunded tanks	Restricted	Explosion, acute toxicity	Tank inspection, signage	TBC	Quarterly	TBC	Annually	TBC	Spill kit, isolate ignition, extinguish with foam	Absorbents, PPE, drain covers; Class B extinguisher	TBC	Annually	Supplier return or hazardous waste contractor	TBC	HSNO, EPA	TBC	Annually	
Petrol	20 L	O & M Building	UN1203	3.1A	Yes (TBC)	Fuel cabinet	Away from oxidisers	Bunded storage	Locked area	Fire/explosion	Signage, ventilation	TBC	Monthly	TBC	Annually	TBC	Remove ignition, extinguish with foam	Class B extinguisher	TBC	Annually	Hazardous waste contractor	TBC	HSNO, Fire Safety Regs	TBC	Annually	
Diesel	1,500 L	Outside of Warehouse	UN1202	3.1D 6.1E; 6.3B; 6.7B; 9.1B	Yes (TBC)	Bunded tanks	Away from oxidisers	Bunded tanks	Restricted	Spills, fire	Tank inspection, signage	TBC	Quarterly	TBC	Annually	TBC	Spill kit, isolate ignition	Absorbents, PPE; Class B extinguisher	TBC	Annually	Used oil contractor	TBC	HSNO, EPA	TBC	Annually	
Cleaning and Maintenance - Facilities																										
General solvent cleaner	TBC	O & M Building	Varies	Typically, 3.1C/3.1D	Yes (TBC)	Flame cabinet	Separate from oxidisers	Bunded	Restricted	Vapour inhalation	PPE, ventilation	TBC	Quarterly	TBC	Annually	TBC	Ventilation, isolate ignition	Respirators, extinguisher	TBC	Annually	Hazardous waste contractor	TBC	HSNO	TBC	Annually	
Detergents & cleaners	TBC	Lunchrooms, bathrooms	N/A	Varies (typically 6.1E, 9.1D)	Yes (TBC)	Closed cupboards	Away from acids	Secondary containment	Trained staff	Irritation, spills	PPE, signage	TBC	Quarterly	TBC	Annually	TBC	Clean spill, dispose properly	Gloves, signage	TBC	Annually	Local waste facility	TBC	WMA	TBC	Annually	
Pesticides and Herbicides - Landscape / Site maintenance																										
General pesticide/herbicide mix	TBC	O & M Building	UN2902	6.1C, 9.1B	Yes (TBC)	Pesticide Cabinet	Segregated by class	Bunded shelf	Trained staff	Toxic exposure	Gloves, mixing protocol	TBC	Quarterly	TBC	Annually	TBC	Avoid contact, PPE	PPE, signage	TBC	Annually	Contractor	TBC	HSNO	TBC	Annually	





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