

Pollution Incident Response Management Procedure

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN**LICENCE NUMBER: 5803****Approved by:** Gaby Peimer**Position/Title:** Managing Director**Signature:****Date:****PURPOSE:**

Battery Energy holds an Environment Protection Licence with the NSW Environment Protection Authority (EPA) for Battery Energy lead-acid battery manufacturing and warehousing facility located at 96 Fairfield Street, Fairfield NSW 2165. The site is covered by the Environmental protection Licence number 5803 as per the protection of the Environment Operations Act 1997.

Additional References:

- NSW Occupational Health and Safety Act 2000
- NSW Occupational Health and Safety Regulations 2001
- Australian Standard AS/NZ 4801 Occupational Health and Safety
- Managing Risk of Hazardous Chemicals in the Workplace Code of Practice
- Battery Energy Occupational Health and Safety Policy
- Battery Energy Quality Manual
- Battery Energy Risk Assessment
- Battery Energy MSDS
- Australian Standard AS4260-1997 High Efficiency Particulate Air (HEPA) Filters
- Australian Standard ISO 14001:2204 Environmental Management Systems

Work health, safety and environment concern the health, safety and welfare of all people in the workplace and the environment. Battery Energy's emphasis is on the prevention of work-related incidents, injury, illness and disease by using safe people, safe systems of work and a safe work environment including property and plant. Battery Energy is committed to the development and maintenance of a safe and healthy working environment with its fundamental obligations to employees, society and the environment.

Environment Protection Licence (EPL) Details

Name of licensee: (including ABN)	Battery Energy Power Solutions PTY LTD ABN: 83 003 325 139		
EPL number:	5803		
Premises name and address:	96 Fairfield Street, Fairfield NSW 2165		
Company or business contact details	Name: Battery Energy Power Solutions Pty Ltd Position or title: Reception Business hours contact number/s: 02 96813633		
Website address:	www.batteryenergy.com.au		
Scheduled activity/activities on EPL:	Manufacturing Lead-Acid batteries and warehousing		
Fee-based activity/activities on EPL:	Fee based activity	Activity scale	Unit of measure
	Battery Production	>0.00 – 500.00	T annual production capacity

Pollution incident – person/s responsible**PIRMP activation**

Name of person responsible: David Clark
Position or title: Production Manager
Business hours contact number/s: 02 96813633
After hours contact number/s: 0425 330 694
Email: david.clark@batteryenergy.com.au

Alternative contact

Name of person responsible: Ziyad Yalda
Position or title: Maintenance Manager
Business hours contact number/s: 02 96813633
After hours contact number/s: 0401 724 360
Email: ziyad.yalda@batteryenergy.com.au

Name of person responsible: Peter O' Regan
Position or title: Warehouse Manager
Business hours contact number/s: 02 96813633
After hours contact number/s: 0402 1260718
Email: peter.oregan@batteryenergy.com.au

Name of person responsible: Rajendra Singh
Position or title: Quality Assurance Manager
Business hours contact number/s: 02 96813633
After hours contact number/s: 0417 955 440
Email: rajendra.singh@batteryenergy.com.au

Name of person responsible: Gaby Peimer
Position or title: Managing Director
Business hours contact number/s: 02 96813633
After hours contact number/s: 0437 502 624
Email: gaby.peimer@batteryenergy.com.au

Pollution incident – person/s responsible, continued
Notifying relevant authorities

Name of person responsible: David Clark
Position or title: Production Manager
Business hours contact number/s: 02 96813633
After hours contact number/s: 0425 330 694
Email: david.clark@batteryenergy.com.au

Managing response to pollution incident

Name of person responsible: David Clark
Position or title: Production Manager
Business hours contact number/s: 02 96813633
After hours contact number/s: 0425 330 694
Email: david.clark@batteryenergy.com.au

Notification of relevant authorities

Fire & Rescue NSW / Rural Fire Service	Contact number/s:	000
EPA	Contact number/s:	131 555
NSW Health	Relevant Area Health Service: Contact number/s:	Fairfield Hospital 02 9681 8006
SafeWork NSW	Contact number/s:	131 050

Notification of relevant authorities, continued

Local authority	Contact number/s:	02 9725 0222
Sydney Water	Contact number/s:	132 090
Verona School	Contact number/s:	02 97210488

Notification of neighbours and the local community

Belmont Timber	Contact number:	02 9681 2100
King Wreck Australia	Contact number:	02 9721 0024
Yennora Public School	Contact number:	02 9632 8660
Rosary Nursing Home Yennora	Contact number:	02 9892 4665
Arabic Assembly of God	Contact number:	02 9755 7568
Yennora Oasis Hotel	Contact number:	02 9632 6328

Details of how the neighbours will be informed of the incident, including early warnings and regular updates (e.g. door knock, phone call, emergency alert):

Belmont Timber and King Wreck – the two neighbours by door knock or phone call. Others listed via phone call.

Description and likelihood of hazards/ Pre-emptive actions to be taken

Refer APPENDIX A for risk matrix table*

Event No	Hazard Identification guide word	Hazardous Event	Causes	Prevention Safeguards	Consequences	Mitigation Safeguards	Consequences	Likelihood	Existing Risk Rating	Is the risk ALARP?	Additional Safeguards	Consequences	Likelihood	Residual Risk Rating
1. Acid Filling Area														
	Release of fume	Contact with Sulphuric acid fumes	Failure of acid storage tank	Inspect for damage and leaks. Protect against physical damage.	Release sulphuric acid fumes through open doorways	Spill contained by site personnel. Acid is neutralised, clean up undertaken.	Moderate	Possible	Medium	Yes	Check bunding has capacity of 110% of the tank volume. Preventative maintenance, inspection of pipelines. Provision of emergency isolation valves.	Minor	Possible	Medium
	Release of liquid	Contact with Sulphuric acid as a liquid. Burns	Spill from acid filling line	Bunding	Release sulphuric acid fumes through open doorways	Spill contained by site personnel. Acid is neutralised, clean up undertaken.	Moderate	Possible	Medium	Yes		Minor	Possible	Medium

Event No	Hazard Identification guide word	Hazardous Event	Causes	Prevention Safeguards	Consequences	Mitigation Safeguards	Consequences	Likelihood	Existing Risk Rating	Is the risk ALARP?	Additional Safeguards	Consequences	Likelihood	Residual Risk Rating
2. Formation														
	Release of fume	Contact with hydrogen and sulphuric acid mist	Charging of batteries	Building ventilation	Hydrogen and sulphuric acid mist released through open doorways	Spill contained by site personnel. Acid is neutralised, clean up undertaken	Minor	Possible	Medium	Yes		Minor	Possible	Medium
	Electrical fire/Explosion	Electrical fire/Explosion	Sulphuric acid is heated and decomposed	Building ventilation	Fire damage, explosion, release of sulphur dioxide	Fire services	Minor	Unlikely	Low	No	Measure explosive gas concentrations and if LEL reaches 10% then add additional ventilation	Minor	Unlikely	Low

Event No	Hazard Identification guide word	Hazardous Event	Causes	Prevention Safeguards	Consequences	Mitigation Safeguards	Consequences	Likelihood	Existing Risk Rating	Is the risk ALARP?	Additional Safeguards	Consequences	Likelihood	Residual Risk Rating
3. Battery Storage														

	Release of fume	Release of sulphuric acid fumes	Physical damage to batteries	Inspect for damage and leaks. Protect against physical damage	Release sulphuric acid fumes	Spill contained by site personnel. Acid is neutralised, clean up undertaken	Major	Possible	High	Yes		Major	Possible	High
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4. Post Casting

	Release of dust	Release of lead dusts	Failure of exhaust system	Regular maintenance checks	Liberation of lead dust in air release of lead dust through open doorways	Avoid dust formation on surfaces sweep	Moderate	Possible	Medium	Yes		Minor	Possible	Medium
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Event No	Hazard Identification guide word	Hazardous Event	Causes	Prevention Safeguards	Consequences	Mitigation Safeguards	Consequences	Likelihood	Existing Risk Rating	Is the risk ALARP?	Additional Safeguards	Consequences	Likelihood	Residual Risk Rating
5. Lug Buffing														
	Release of dust	Release of lead dusts	Failure of vacuum/ or exhaust system	Regular maintenance checks. Respirators.	Liberation of lead dust in air release of lead dust through open doorways	Regular checks on exhaust systems and respirators to avoid lead dust accumulation	Minor	Possible	Medium	Yes		Minor	Possible	Medium

Event No	Hazard Identification guide word	Hazardous Event	Causes	Prevention Safeguards	Consequences	Mitigation Safeguards	Consequences	Likelihood	Existing Risk Rating	Is the risk ALARP?	Additional Safeguards	Consequences	Likelihood	Residual Risk Rating
6. Grid/Plate Storage and cleaning														
	Release of dust	Release of lead dusts	Failure of dust extractor split of bag.	Regular maintenance checks	Lead dust not captured, released into environment	Avoid dust formation on surfaces - sweep	Minor	Possible	Medium	Yes	Preventive maintenance by routine replacement of bags	Minor	Possible	Medium
			Mishandling of lead materials and products	Site personnel training	Liberation of lead dust in air, release of lead dust through open doorways	Avoid dust formation on surfaces - sweep.	Minor	Possible	Medium	Yes		Minor	Possible	Medium

Event No	Hazard Identification guide word	Hazardous Event	Causes	Prevention Safeguards	Consequences	Mitigation Safeguards	Consequences	Likelihood	Existing Risk Rating	Is the risk ALARP?	Additional Safeguards	Consequences	Likelihood	Residual Risk Rating
7. Battery Assembly area														
	Release of dust	Release of lead dusts	Failure of dust extractor	Regular maintenance checks	Lead dust not captured, released into environment	Avoid dust formation on surfaces - sweep	Minor	Possible	Medium	Yes		Minor	Possible	Medium

	Release of dust	Release of lead dusts	Mishandling of lead materials and products	Site personnel training	Liberation of lead dust in air, release of lead dust through open doorways	Avoid dust formation on surfaces - sweep	Minor	Possible	Medium	Yes		Minor	Possible	Medium
8. General														
	Release of dust	Release of lead dusts	Mishandling of lead materials and products	Site personnel training	Liberation of lead dust in air, release of lead dust through open doorways	Avoid dust formation on surfaces - sweep	Minor	Possible	Medium	Yes		Minor	Possible	Medium
	Harmful exposure	Release of flammable gases	Leak from explosion of flammable gas cylinder	Inspect for damage and leaks. Protect against physical damage. Correct storage of flammable gases.	Fire with release of smoke	Fire services	Major	Unlikely	Low	Yes		Major	Unlikely	Low

Inventory of pollutants on the premises or used in carrying out the activity to which the licence relates

Contents	Max. Quantity	Location	Hazardous substance yes/no	Dangerous goods yes/no
Epoxy Resin	100L	Factory	yes	no
Sodium Hydroxide – Caustic Soda Pellets	373.60Kg	Factory	yes	no
Sodium Hydroxide – Caustic Soda	60L	Factory	yes	no
Super Kleen	750ml	Factory	yes	no
Sulphuric Acid – 1400 density	5000Kg	Factory	yes	yes
Sulphuric Acid – 1250 density	2.5L	Lab	yes	yes
Sulphuric Acid – 1240 density	1.5L	Lab	yes	yes
Primer PC120	2L	Factory	yes	yes
Methanol	10L	Lab	yes	yes
Ethanol	2.5L	Lab	yes	yes
Paint Stripper - Polystrippa	1000ml	Maintenance	yes	no
Red/ Black Battery sealant – K9118	40Kg	Factory	yes	no
Blanc Fixe N Barium Sulphate	105Kg	Factory	yes	no
Nitric Acid	3L	Lab	yes	yes
Acetic Acid 90-100%	3L	Lab	yes	yes
Ammonium Acetate	2Kg	Lab	yes	yes
Acetone	20L	Lab	yes	yes
WD-40 Aerosol	1275g	Maintenance	yes	yes
Wet Lead Acid Storage Batteries	>500Kg	Warehouse	yes	yes
Sealed Lead Acid Batteries	>50 tonnes	Warehouse	yes	no

Contents	Max. Quantity	Location	Hazardous substance yes/no	Dangerous goods yes/no
Bostik Glue	7Kg	Maintenance	yes	no
Liquefied Petroleum Gas (LPG)	10Cyl	Cage	yes	yes
Compressed Acetylene	4Cyl	Cage	yes	yes
Super Shield Argon	3Cyl	Maintenance	yes	yes
Butanox M50	10L	Factory	yes	yes
Kerosene	20L	Factory	yes	yes
Soda Ash – Sodium Carbonate	300Kg	Factory	yes	no
CAB-O-SIL® Untreated Fumed Silica	600Kg	Factory	yes	no

Safety equipment

1. P2 Respirators (Appropriate PPE inc)
2. Eye and Full Body Drench Area
3. Chemical Spill Kits
4. First Aid Kits

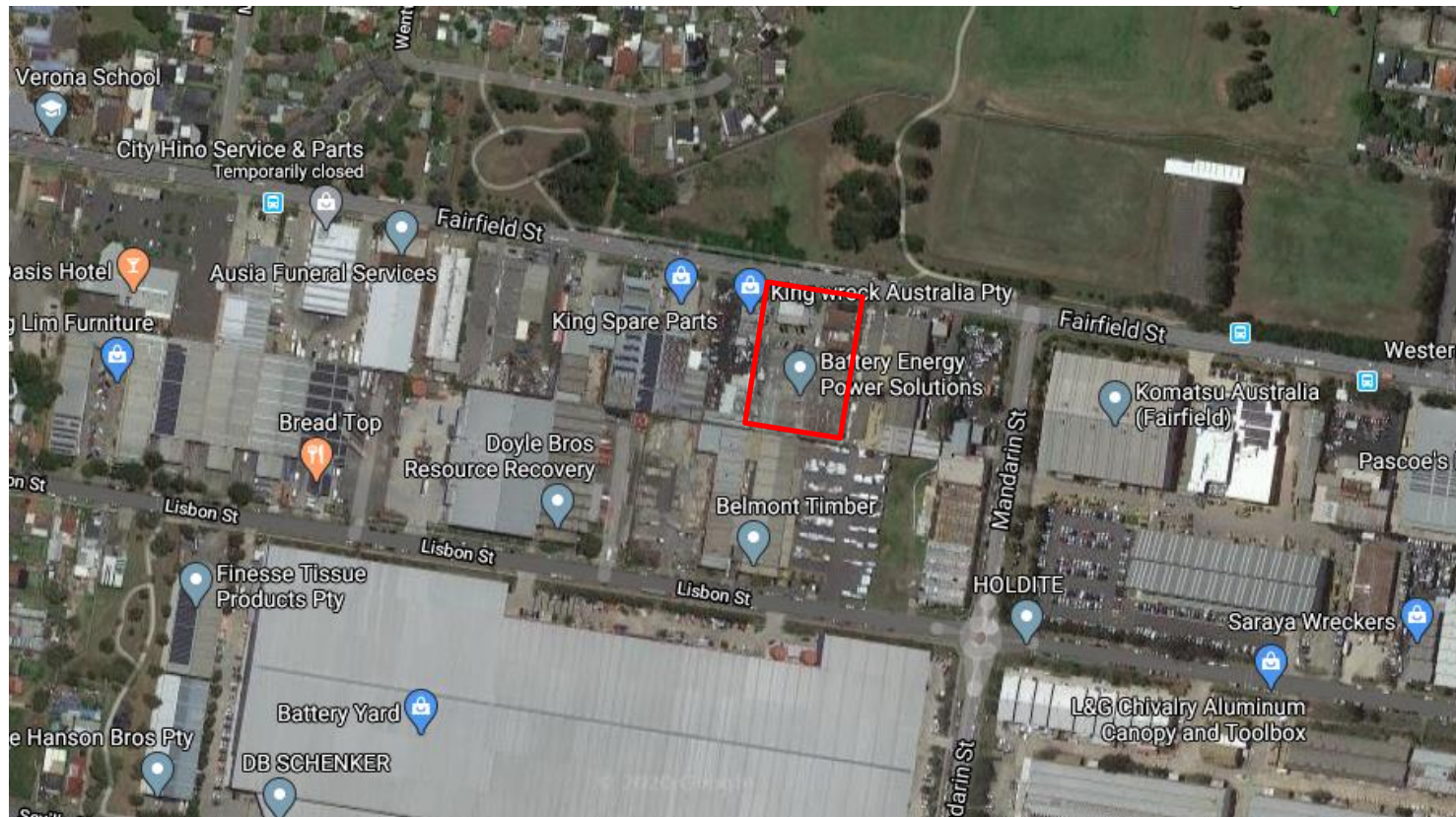
Communicating with neighbours and the local community

All community stakeholders that maybe affected by a spill will be notified. These include:

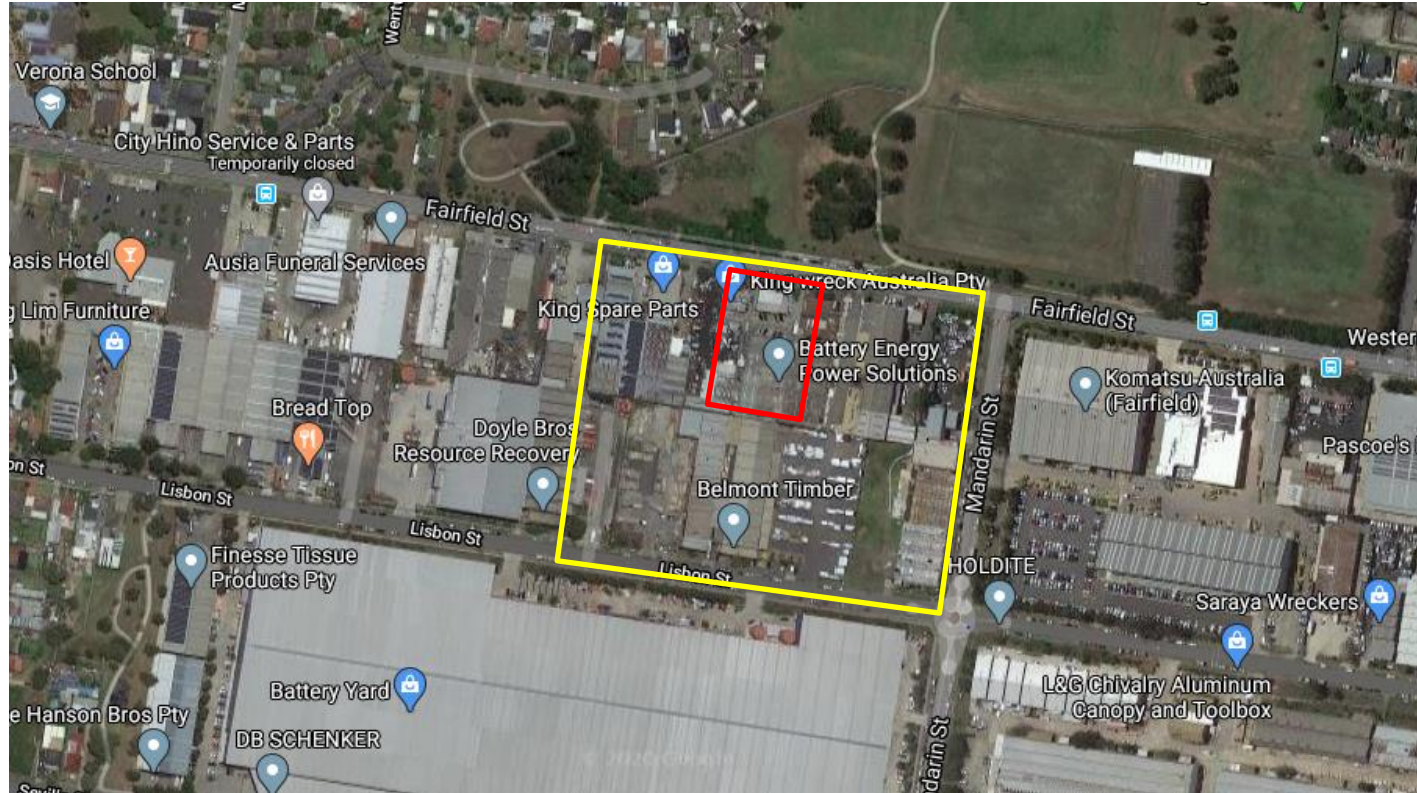
1. Neighbouring commercial properties.
2. General public within the vicinity of the site including, pedestrians, motorists and users of nearby recreational facilities.
3. Nearby water course (rivers, streams, dams etc.) used for recreational and/ or commercial purposes.
4. Farmers located downstream from the water courses affected by a spill.
5. Schools, Churches and Nursing homes

Maps

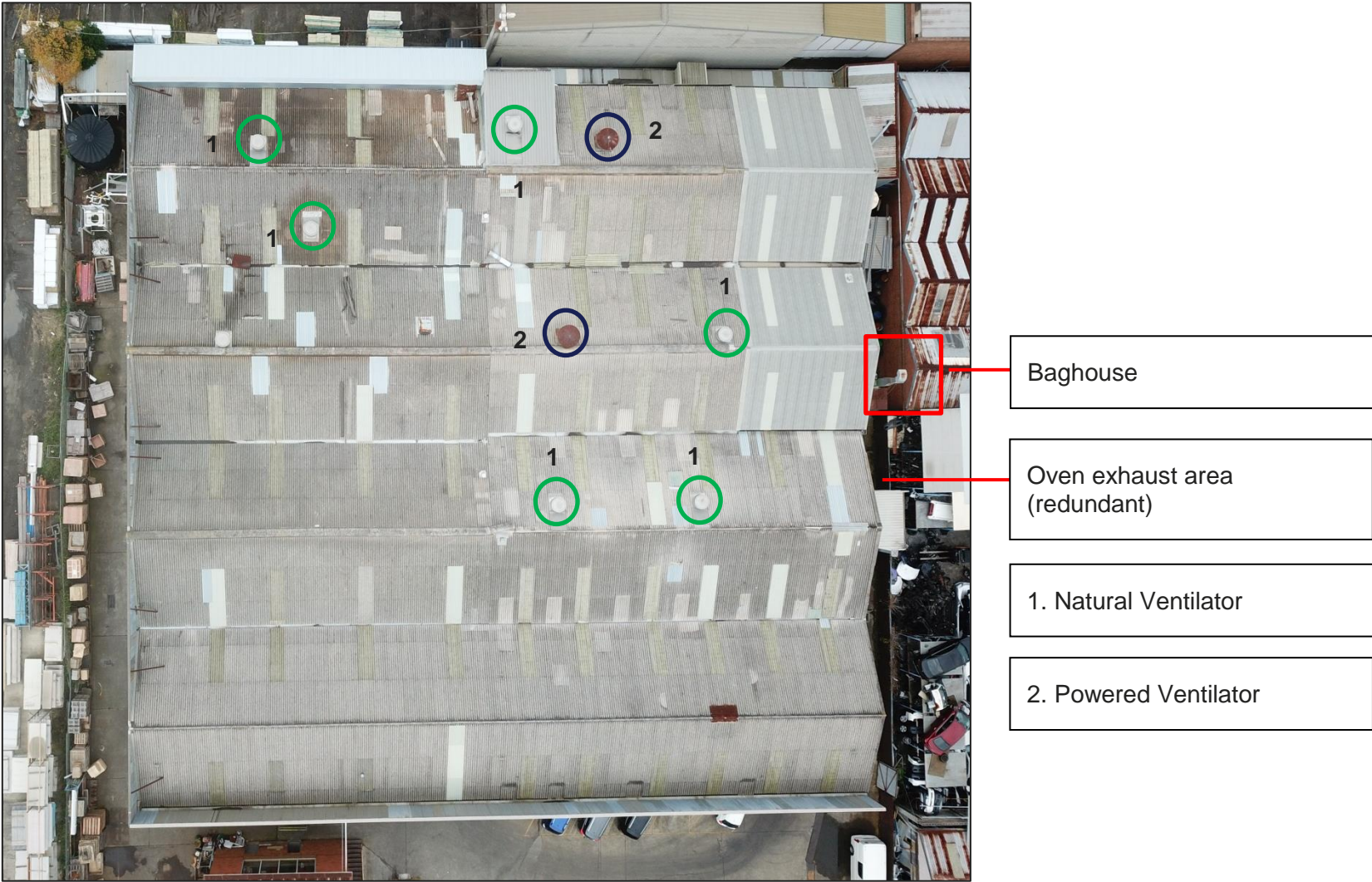
1. Site Boundary (not to scale)



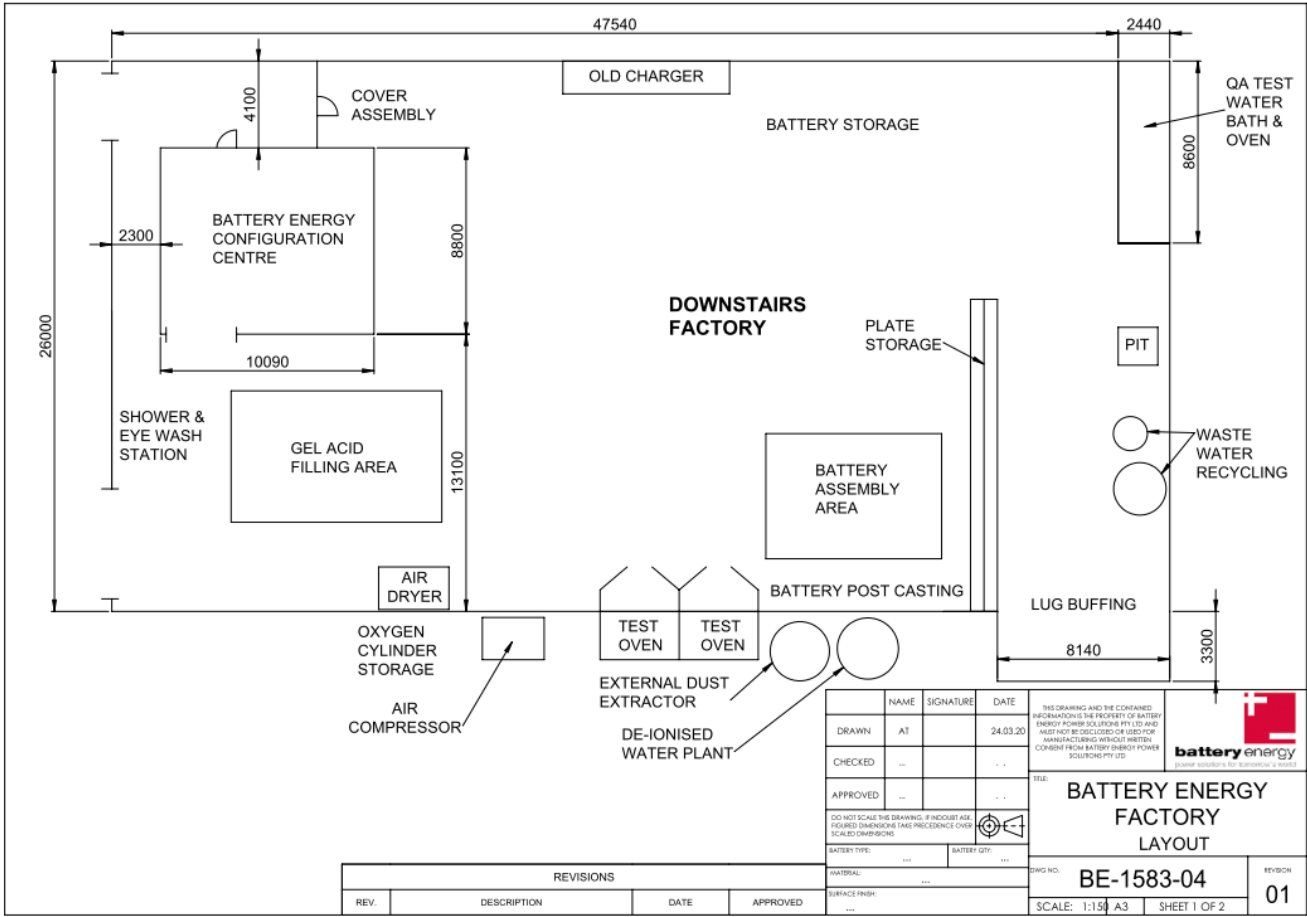
2. Surrounding area Likely to be affected by a pollution incident

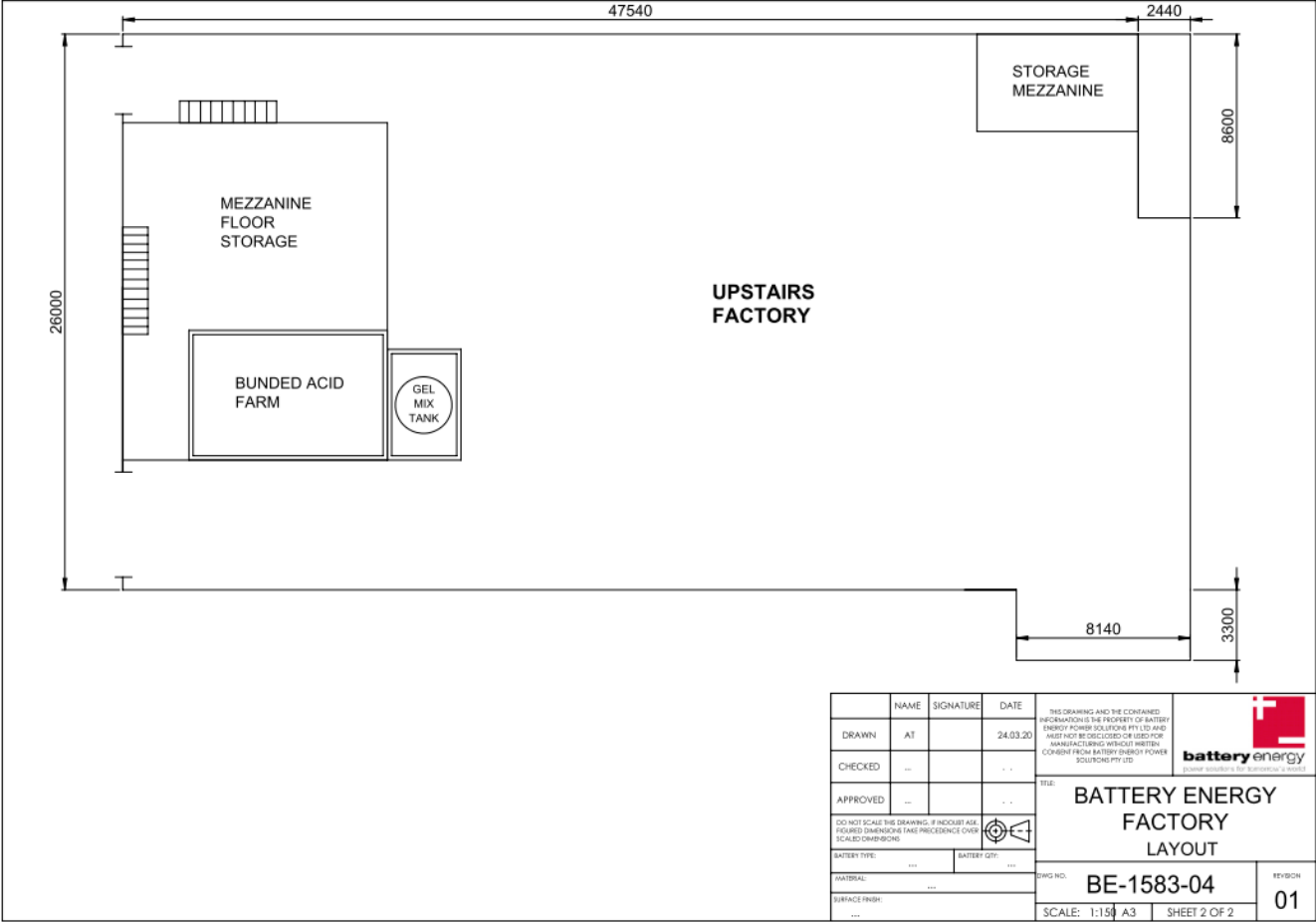


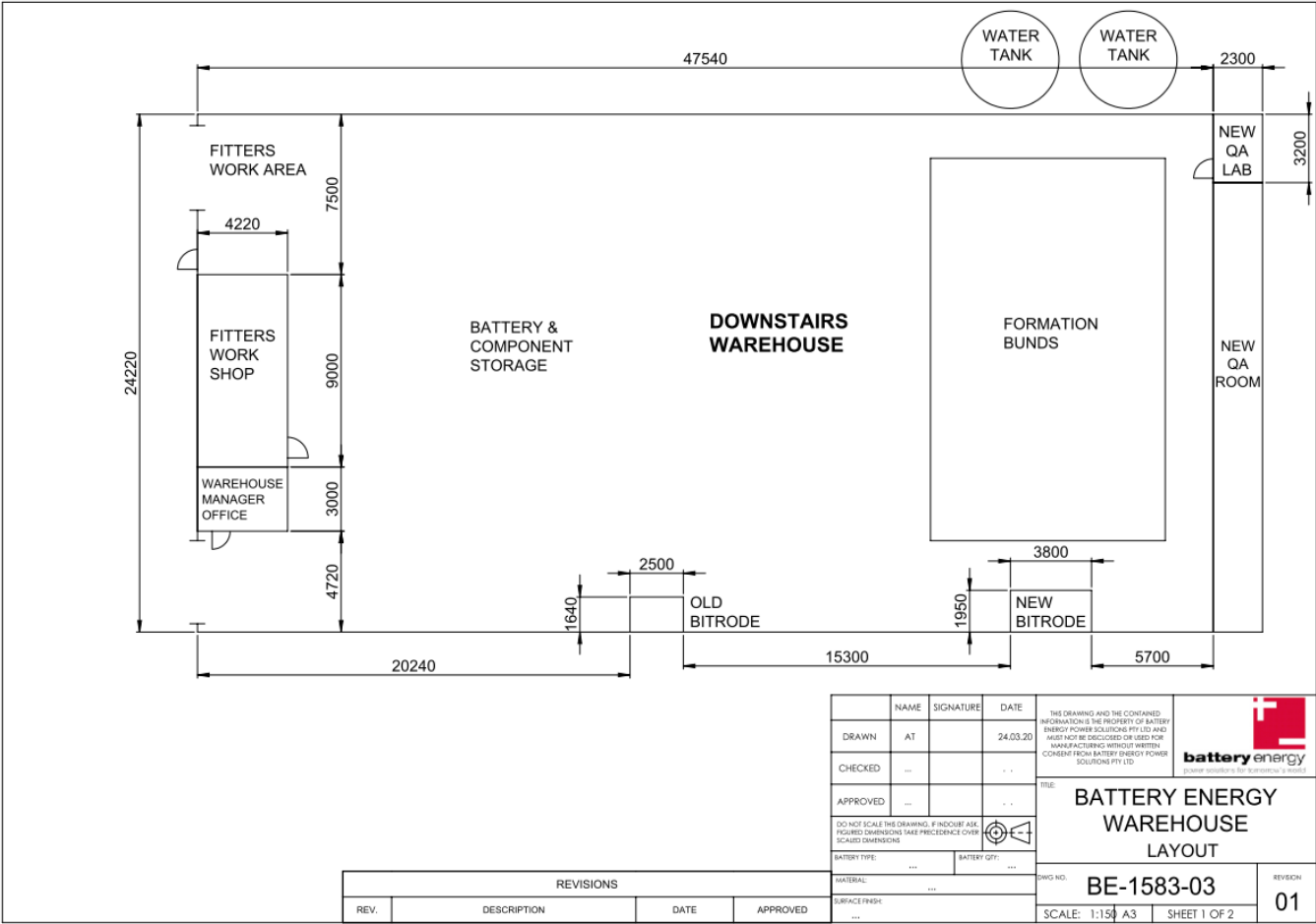
3. Aerial View of the roof

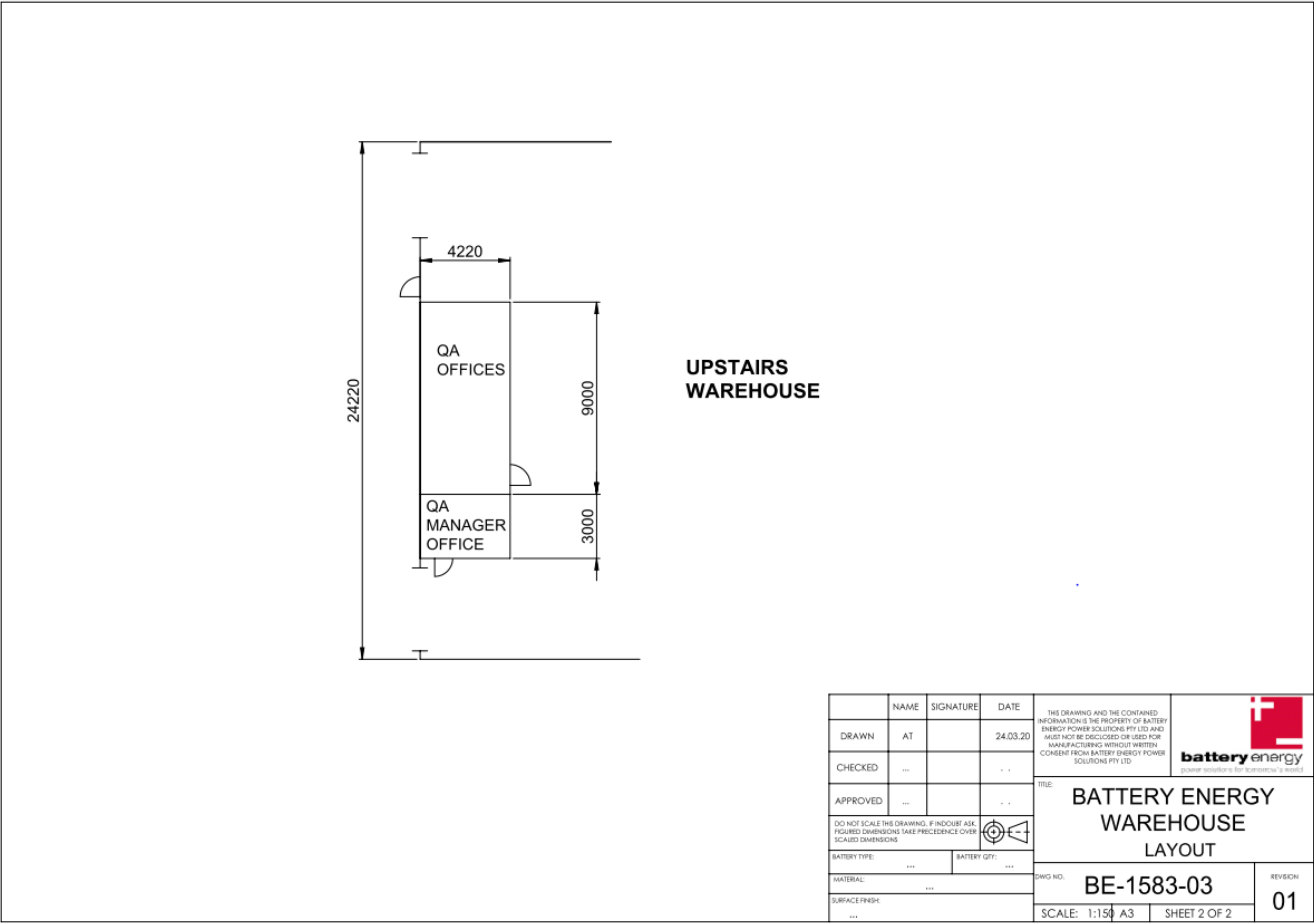


4. Facility Layout Schematic









Actions to be taken during or immediately after a pollution incident

Actions undertaken in the event of a pollution incident;

STOP

1. Stop the source of the emission/ leak.
2. Ensure that the necessary emergency materials are on hand to control larger emission/ leaks.

CONTAIN

If there is a spill, leak or emission the succeeding actions should be followed to ensure that the spill, leak or emission is contained.

1. Wear appropriate protective clothing, acid resistant boots, gloves, face shield and goggles.
2. If safe stop the source of the leak/ emission.
3. Evacuate and limit access to the area.
4. Remove combustible material all sources of ignition.
5. No smoking or naked flames near the spill, leak or emission.
6. Utilise barriers to prevent spreading.
 - a. Absorbent booms, mats
 - b. Rags
 - c. Drain blanket
 - d. Soda ash (sulphuric acid only)
7. If the spill or leak in on hard surface use appropriate absorbent barrier or sand/ soda ash mix.
8. Ensure spilled material does not discharge off site

MITIGATE

If the acid spill is discharged outside the bounded factory/ warehouse into storm water drains then mitigation controls are used to ensure this spill is not spread. This may include:

1. Blocking drains further down the line.
2. Implement environmental controls further downstream to minimise impact to the environment.
3. Notify emergency services/ Hazchem.

CLEAN UP

After the spill/ leak or emission has been contained the succeeding actions should be followed:

1. Clean up the spill or leak using appropriate controls/ spill kit.
2. When the spill or leak has been neutralised, collect residue and place in a suitable container labelled as containing hazardous waste.
3. Treat residue as hazardous waste when disposing.
4. Do not release hazardous waste into drains, sewers or the environment.
5. Dispose residue in accordance with relevant local waste management requirements.

REVIEW

1. Conduct an investigation into the event.
2. Complete internal 'Incident Report' form.
3. Review the effectiveness of 'Pollution Incident Response Management Procedure' annually and after the incident to ensure controls/ spill kits are replenished.
4. Review the Hazardous Substance Register to ensure the control measures are adequate.
5. Consult with the employees about the review of the Hazardous Risk Register to ensure control measures and instructions are understood and complied with.
6. Assist the EPA and/ or investigators with external enquiries if required

Staff training

Battery Energy has a workplace training program that allows employees the opportunity to expand their knowledge and skill sets. Ongoing training is important and allows Battery Energy to outline what training is required. Training could include toolbox talks, formal staff training on incident management, undertaking simulated incident exercises, including with emergency services. The training needs to be suitable for the level of risk and likelihood of incidents.

Testing and updating of the PIRMP

See APPENDIX B for further details

Example: PIRMP testing details

Date tested	Tested by	Details of test	Finding of test, including issues identified	Next scheduled testing date (must be within 12 months from current test)
16/06/2020	David Clark, Production Manager	Simulated test: Potential Sulphuric Acid spill near factory entrance 1. Stop the source of spill if possible 2. Use spill kit and drain mats to contain the spill 3. Locate Soda Ash to neutralise the acid 4. Avoid chemical spill flow into the drains 5. Clean up immediately 6. Use Emergency shower and Eye wash station	Replenish Soda Ash	TBA

PIRMP update details

Date update occurred	Reason for update	Details of updates	Date the updated version uploaded to website (if applicable)	Date of completion
16/06/2020	New Template	Maps and inventory updated Outdated items identified in annual testing Soda Ash found only has a few sacks remaining on the site Review new risk assessment for potential Molten Lead spill from the Lead pot	Contact details: David Clark, Production Manager Vaishnavi Yuvaraj, Graduate Chemical Engineer	30/06/2020

APPENDIX A

Risk Matrix Table

Consequence	Likelihood				
	Almost Certain	Likely	Possible	Unlikely	Rare
Critical	Very High (1)	Very High (3)	High (6)	High (10)	Medium (15)
Major	Very High (2)	High (5)	High (9)	Medium (14)	Medium (19)
Moderate	High (4)	High (8)	Medium (13)	Medium (18)	Low (22)
Minor	High (7)	Medium (12)	Medium (17)	Low (21)	Low (24)
Negligible	Medium (11)	Medium (16)	Low (20)	Low (23)	Low (25)

Very High	Operations must stop immediately and notify the manager
High	Do not Commence work until additional controls which will lower the risk are put in place
Medium	Agreed controls must be in place and verified to effectively minimise the risk/impact before commencing task
Low	Actions, where applicable can proceed with continuous monitoring

Consequence	Description
Critical	Fatality or multiple fatalities Off-site Release (major spill / emission) with Detrimental Effects.
Major	Lost Time Injury; Permanent loss of function or disability Requiring notification to the Regulatory Authority. Major Consumption/Aspect; Off-site Release (spill / emission); External complaints.
Moderate	Medical Treatment required. Lost time injury with temp loss of function Moderate Consumption/Aspect, On-site Release contained with Outside Assistance.
Minor	First Aid Treatment. No lost time injury, Minor Consumption/Aspect, On-site Release (spill / emission) immediately Contained.
Negligible	No Injuries, minor adjustment to routine No or Insignificant negative impact on Environment.

Likelihood	Description
Almost Certain	Is expected to occur frequently, in most circumstances
Likely	Is expected to occur occasionally.
Possible	Could occur, capable of happening, foreseeable
Unlikely	Might occur sometime but not expected
Rare	May occur only in exceptional circumstances.



Toolbox Meeting Record Form

Work group: FACTORYDate: 16/6/20Meeting held at: FACTORY

Signed: _____

Conducted by: DAVID CLARK.

Signed: _____

WHS Representative: ZIYAD YALDA, JD FANNON

Signed: _____

Issues to be covered: PIRMP - WHAT IT MEANS, WHAT IT DOES, HOW TO USE.
PUTTING PIRMP INTO ACTION
Other issues addressed: WHAT TO DO IN A CHEMICAL SPILL OR FUME ESCAPE.
Issues to be covered:

Action	By whom	Timeframe
WHAT IS PIRMP & HOW TO USE		
WHO TO INFORM		

Staff in attendance (all participants to print name and sign):

1	DAVID CLARK.	
2	J.D Fannon	
3	Okahem kandel	
4	VL phamm	
5	VD DAO	
6	Shedats Walyda	
7	SYLAN ZORFA	
8	Vaishnavi Yuvaraj	
9	Ziyad Yalda	
10		
11		
12		

Battery Energy Evacuation Drill & Pollution Incident Response Report

Date: 16/06/2020			Drill Start At: 9:55 am		Drill Finish At: 10:06 am	
Battery Energy Employees List:						
No.	First Name	Last Name	Attendance	Respond	Notes	
1.	Adrian	Edgar	Not in	-----	-----	
2.	Gaby	Peimer	Present	Evacuated	On time	
3.	Van Do	Dao	Present	Evacuated	On time	
4.	David	Clark	Present	Evacuated	On time	
5.	Shedrak	Warda	Present	Evacuated	On time	
6.	Fiona	Guan	Present	Evacuated	On time	
7.	Ziyad	Yalda	Present	Evacuated	On time	
8.	Carlos	Ordonez	Present	Evacuated	On time	
9.	Orahem	Kandal	Present	Evacuated	On time	
10.	Ziad	David	Present	Evacuated	On time	
11.	Peter	O'Regan	Present	Evacuated	On time	
12.	VL	Pham	Present	Evacuated	On time	
13.	David	Psaila	Present	Evacuated	On time	
14.	Hugo	Schythe	Present	Evacuated	On time	
15.	Rajendra	Singh	Not in	-----	-----	
16.	Salam	Zora	Present	Evacuated	On time	
17.	Stuart	Smith	Present	Evacuated	On time	
18.	Tina	Millard	Present	Evacuated	On time	
19.	JD	Fannon	Not in	-----	-----	
20.	Brendan	Feltoe	Not in	-----	-----	
21.	David	Brown	Present	Evacuated	On time	
22.	Karam	Akram	Present	Evacuated	On time	
23.	Phuc Nhu	Liu	Present	Evacuated	On time	
24.	Andrew	Tedjajuwana	Present	Evacuated	On time	
25.	Allan	Kinnaird	Not in	-----	-----	
26.	Mir	Ehsan	Present	Evacuated	On time	
27.	Van Hue	Tram	Present	Evacuated	On time	
28.	Anthony	Taylor	Not in	-----	-----	
29.	Sanjeewa	Wandala Gamage	Present	Evacuated	On time	
30.	Mia	Yang	Present	Evacuated	On time	
31.	Nicole	Liu	Present	Evacuated	On time	
32.	Vaishnavi	Yuvaraj	Present	Evacuated	On time	
33.	Dannielle	Jarvis	Present	Evacuated	On time	
No.	First Name	Last Name				
1.						
2.						

Ziyad Yalda

Chief Fire Warden