Identify the hazard and eliminate or reduce the risk

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| Project | Collie Battery Energy Storage System | Date |  |
| Location |   | Permit No |  |
| Work area |   | JHA Ref No | JHA -  |
| Job Description |  |

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| **Names of JHA team** | **In the event of a medical emergency**  |
| Team Leader |  | Supervisor Signature |  | Name of First Aider |  |
| Team Members | Team Members | Team Members | Team Members | State the point where the injured person would be taken |  |
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|  |  |  |  | Recovery Method |  |
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All JHAs **expire** after 7 days. All personnel working on or entering the worksite are to **read and sign** onto this JHA **daily**

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| **With everything we do we will consider the Hierarchy of Controls and ask ourselves…**Can I ***Eliminate*** the hazard altogether or ***Substitute*** with a safer alternative (process/substance)?How can I ***Isolate*** (de-energise and lock out) the risk or implement ***Engineering***controls (guards, barricades)?Can I Include ***Administration*** controls (reduce duration of exposure, increase supervision/inspection/training)?Can I reduce the risk of harm with additional ***PPE*** (hearing protection, double eye protection, arc flash rated PPE)? |

**What hazards may be associated with this particular job?**

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| What are the **potential hazards** on the job? Consider the following, “X” where applicable and write into your JHA |
| Electrical |[ ]  Mechanical  |[ ]  Gravitational |[ ]  Hot/Cold Objects |[ ]  Climatic |[ ]  Collision |[ ]
| Waste |[ ]  Biomechanical |[ ]  Thermal |[ ]  Pressure |[ ]  Ergonomic |[ ]  Ground Condition |[ ]
| Hazardous Substance |[ ]  Radiation |[ ]  Noise/Vibration |[ ]  Biological |[ ]  Cultural |[ ]  Fatigue |[ ]
| Foreign body |[ ]  Dust  |[ ]  Asbestos  |[ ]  Slip/Trip |[ ]  Cut/Pierce/Puncture |[ ]  Fauna (bite, sting) |[ ]
| Chemical  |[ ]  Gas |[ ]  Fire/Explosion |[ ]  Subcontractor Interaction |[ ]   |[ ]   |[ ]

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| Consider the following mechanisms of injury, “X” where applicable and write into your JHA |
| Contact with |[ ]  Caught in |[ ]  Caught between  |[ ]  Cut by |[ ]  Struck against |[ ]  Slip / Trip |[ ]  Fall from  |[ ]  Inhalation |[ ]
| Contact on |[ ]  Contact by |[ ]  Fire / Explosion |[ ]  Crushed by |[ ]  Struck by |[ ]  Strain / Over Exertion |[ ]  Dust |[ ]  Chemical / Gas |[ ]

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| Consider the following scope of work requirements and “X” where applicable |
| **PPE Requirements** | **Plant, Equipment and Tools Requirements** | **Isolation, Locks, Tagging, Barricades and Signage** | **Further Information Required** |
| Safety Harness |[ ]  Communications |[ ]  Light Vehicle |[ ]  Isolation Tags |[ ]  SWMS, SDS, WI |[ ]
| Static Line |[ ]  Genset |[ ]  Winch |[ ]  Isolation Locks |[ ]  Manual Handling |[ ]
| Goggles |[ ]  Hand Tools |[ ]  Extension Leads |[ ]  Barricade (Hard) |[ ]  Instruction Manual |[ ]
| Face Shield |[ ]  Tool Lanyard |[ ]  Backhoe |[ ]  Flagging |[ ]  TMP |[ ]
| Hearing Protection |[ ]  Welding Machine |[ ]  Power Source |[ ]  Bunting |[ ]   |[ ]
| Sunscreen |[ ]  Compactor |[ ]  Cable Sock |[ ]  Hot Work |[ ]   |[ ]
| Gloves |[ ]  Drill |[ ]  Crane |[ ]  Working Above |[ ]  **Permit To Work** |
| Safety Glasses |[ ]  Grinder |[ ]  EWP |[ ]  Barricade (Hard) |[ ]  Confined space |[ ]
| Safety Hat |[ ]  Welding Blanket |[ ]  Telehandler |[ ]  Traffic Lights |[ ]  Working at Height |[ ]
|  |[ ]  Fire Extinguisher |[ ]  Drop Saw |[ ]   |[ ]  Hot work |[ ]
|  |[ ]  Shovel |[ ]  Safety Step |[ ]   |[ ]  Excavation |[ ]
|  |[ ]  Step Ladder |[ ]  Scaffold |[ ]   |[ ]  Penetration |[ ]

| IDENTIFY THE HAZARDS AND CONTROL THE RISKS |
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| **Job Steps** | **Potential****Hazard/Incident** | **Initial****Risk Rating****(See Take 5****risk matrix)** | **Hold Points Identified** | **Job Step Control Measures** | **Residual****Risk Rating (See Take 5****risk matrix)** |
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| **New or amended**Job steps | **Potential****Hazard/Incident** | **Initial****Risk Rating (See Take 5****risk matrix)** | **New or amended**Job step control measures | **Residual****Risk Rating (See Take 5****risk matrix)** |
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| **By signing this JHA you are acknowledging you have read and understand and will adhere to this Job Hazard Analysis** |
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**ASSIGNED SITE RADIO CHANNELS**

**BELOW ARE THE SITE RADIO CHANNELS CURRENTLY IN USE AT THE COLLIE CBESS PROJECT:**

* **CHANNEL 10 UHF – HANSON BATCH PLANT**
* **CHANNEL 36 UHF – OFFICE / STORES AREA**
* **CHANNEL 37 UHF – GENERAL SITE CHANNEL**
* **CHANNEL 38 UHF – GENERAL ELECTRICAL CHANNEL**
* **CHANNEL 39 UHF – EMERGENCY CHANNEL**

**CLOSED CIRCUIT CHANNEL ALLOCATION – PLEASE UTILISE UHF CHANNELS IF CONTACT IS REQUIRED.**

* **SCEE 1 – FRANNA CRANE**
* **SCEE 2 – CABLE PULL 1**
* **SCEE 3 – CABLE PULL 2**

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| **EMERGENCY RESPONSE PLAN** |
| **Emergency Contact Number** | **MEDIC: 0480 721 751** |  |
| **Radio Channel Number** | **CHANNEL: 39 UHF** |  |
|  |  |  |
| Assess the situation and identify any possible hazards (electrical power lines, obstacles).Call the site medic on radio channel or mobile phone.Provide the following information to the medic:* **Where you are (location)**
* **What the injury is**
* **How many casualties**
* **Stay on the phone/radio until the site medic tells you that they have all the information**

Administer first aid (if you are trained).If possible, send someone to guide the medic to the emergency location.Advise your supervisor as soon as possible. |

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| **EWP EMERGENCY RESCUE PLAN** |
| **Emergency** | **Proposed Action** |
| Failure of basket controls while elevated | Where the normal basket controls fail the operator will use the auxiliary controls from the platform to lower the basket to the ground. |
| Failure of the operator to be able to operate the EWP functions while elevated due to;1. Operator incapacitated
2. Basket controls failing to operate
 | Where the operator is incapable of lowering the basket to the ground the spotter will use the ground controls to lower the basket to the ground. |
| Failure of machine ground controls  | Where the lower ground controls fail to allow the basket to be lowered to the ground a basket to basket rescue may be considered:• A risk assessment **SHALL** be carried and approved by senior management beforehand • The baskets of both machines must be arranged in a way that both basket doors are next to each other with minimal gap• Both machines shall be isolated to prevent unintended movement• The rescuer and the person being rescued (If possible) shall wear fall arrest harnesses with double lanyards• **DOUBLE HOOK UP** shall be practiced when transferring from one basket to another• Care must be taken not to overload the rescue EWP during transfer• The rescue **EWP** shall be lowered to the ground• Medical assistance shall be provided to the rescued operator if required |
| Operator has fallen from basket and is suspended in the air from the fall | A competent person located at ground level will assess the ability to safely manoeuvre the basket to lower the person to ground. A second EWP on standby can manoeuvre the basket under the suspended person. This situation requires a quick response (max 5 minutes) due to possible suspension trauma. |
| **NOTE:** All spotters or appointed persons in control of the safety on the ground must also hold a high-risk ticket (WP) and be verified competent to operate that make and model of EWP. The Spotter must know how to use the EWP controls.**NOTE:** The site medic will be notified of any emergency on **0480 721 751** or channel **39 UHF**. |

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| Manual Handling Techniques/Guide |  | EMERGENCY PREPAREDNESS |
|  | **Medical Emergency Response** | **Fire (Electrical)** |
|  | **D**anger  | - Check for danger  | Image result for use fire extinguisher**R**escue |
|  | **R**esponse  | - Check for response | **A**larm |
|  | **S**end  | - Send for help | **C**ontain Fire |
|  | **A**irways  | - Check for blocked airway | **E**xtinguish (CO² or ABE Powder) |
|  | **B**reathing  | - Check for breathing |  |
|  | **C**PR  | - CPR 30 compressions 2 breaths | **P**ull the pin |
|  | **D**efibrillation  | - Apply defibrillator (if available) | **A**im at the base of fire |
|  |  |  | **S**queeze the trigger |
|  |  |  | **S**weep base of fire |
|  |  |  |  |
|  | **Electrical Medical Emergency Response** | **Contact with Electricity Mobile Plant (HV)** |
|  | * Do not touch person in contact
 | * Stay calm
 |
|  | * Warn others to stay clear
 | * Stay within mobile plant (if safe to do so)
 |
|  | * Disconnect power source if possible
 | * Avoid touching anything metal within the cab
 |
|  | * Call emergency contacts immediately
 | * Warn other to stay away (minimum 8 meters)
 |
|  |  | * Call emergency contacts immediately
 |
|  |  |  |
|  |  |  |
|  | **If not possible to isolate energy** | **If unsafe to remain in plant** |
|  | * Open LV Rescue Kit
 | * Do not touch metal when exiting
 |
|  | * Place insulated gloves on
 | * Try to jump well clear landing with feet together
 |
|   | * Use insulated LV Hook to break contact between
* person and electricity
 | * Jump with both feet together until 8 meters away
* Do not touch any metal object within 8 meters of plant
 |
|  |  |  |
|  | **Medical attention must be sought for all electric shocks** |  |
|  |  |  |

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| Risk Matrix |

