JOB SAFETY ANALYSIS (JSA) INSTRUCTIONS

Step by Step Breakdown of Task

When conducting a JSA it is important that the order of listed steps reflects the order in which the task is actually completed. If not sequential hazards may present themselves without the required control either being effected or not in place. This could not only result in exposure to hazard but could also adversely affect the productivity of the task. For instance, if during a task, the individual task step requires the attendance of a qualified electrician, and that step is not in true sequential order, then an unnecessary delay may occur while waiting for the arrival of the qualified person.

Inherent Risk - The combination of likelihood and consequence assigned to a particular hazard under the assumption that there are no control measures in place

Residual Risk - The risk assessed with the control measures in place.

To manage the residual risk, every effort must be made to ensure the implemented control measures have taken into account both the reduction of Likelihood and Consequence

Residual Risk is assessed to ensure the implemented control measures provide appropriate protection, thereby resulting in an acceptable level of risk.

Overall risk associated with JSA - This is the highest residual risk associated with the identified hazards.

Approvals - Has the appropriate approval been sought before the job commences?

Typically, if the residual risk is:

- Low, then the approval of the relevant supervisor is required prior to the job commencing
- Moderate / medium, then the approval of the relevant department supervisor is required prior to the job commencing
- High / extreme, then the approval of the department manager or superintendent is required prior to the job commencing

Risk matrix

Use the following matrix to calculate the inherent risk and residual risk for each identified hazard.

	Likelihood of injury / harm				
Consequence	**Rare (1)**	**Unlikely (2)**	**Possible (3)**	**Likely (4)**	**Almost certain (5)**
Catastrophic (A)	High	Extreme	Extreme	Extreme	Extreme
Major (B)	High	High	Extreme	Extreme	Extreme
Moderate (C)	Medium	Medium	High	High	Extreme
Minor (D)	Low	Low	Medium	High	High
Insignificant (E)	Low	Low	Low	Medium	High

Consequence table

Use the following matrix to rate the consequence of each identified hazard. Where a hazard could have multiple consequences (e.g., injury and financial cost) the highest consequence should be selected.

	Description			
Consequence	**Injury**	**Illness**	**Environment**	**Financial cost**
Catastrophic	Fatality or permanent disability	Fatality or permanent disability	Disastrous and / or widespread environmental impact	Huge (greater than $500,000)
Major	Lost time injury (greater than 2 weeks)	Lost time injury (greater than 2 weeks)	Serious environmental impact	Major ($50,000 - $500,000)
Moderate	Lost time injury (less than 2 weeks)	Lost time injury (less than 2 weeks)	Substantial environmental impact	High ($20,000 - $50,000)
Minor	Requires basic medical treatment	Requires medical treatment, e.g., for skin rashes	Small and / or localised impact	Medium ($5,000 - $20,000)
Insignificant	Minor	Minor, e.g., headache / nausea	Little or no environmental impact	Low (less than $5,000)

JOB SAFETY ANALYSIS (JSA) TEMPLATE

Company name:	SPEC	**Date:**		**JSA Number:**	
Company ABN	59 612 991 474				
Site name:		**Supervisor name:**	**Scott Pearson**	**Permit to work required?**	**Yes / No**
Plant / Area:		**Location:**			

Scope of JSA:

Performing of electrical installation, maintenance and repair works

JSA team member names:

Scott Pearson

Overall risk associated with JSA: *Highest residual risk – this can only be determined after the rest of the JSA is complete*	

Approved by: *Have the appropriate approval levels been obtained?*	**Scott Pearson**	**Position of approving person:**	**Director**	**Date: 10/1/20**	

Activity *Provide a step-by-step breakdown of the task*	**Hazards** *List all hazards associated with each step*	**Inherent Risk/Score** *Risk associated with each hazard before any control measures are put in place*	**Controls** *Measures that need to be taken to eliminate or minimise the risk associated with each hazard*	**Residual Risk/Score**	**Person Responsible**
PPE correct and fit for purpose	Incorrect, damaged or expired PPE exposing personnel to injury	High (3C)	Check all PPE prior to works is serviceable and correctly fitting and appropriate the task Ensure clothing is not loose fitting (potential to be drawn into machinery)	Medium (1C)	Scott Pearson
Setting up of work areas and preparing of equipment and power tools to carry out the task	General risk of manual handling injuries	High (3C)	Look at the work area and ensure it is clear of hazards Adequate lighting in the work area Electrical tools are tagged with current test tag. Any heavy lifts to be done with a mechanical aid or second person to assist Remove materials that are not required for the task from the work area	Medium (2C)	Scott Pearson
	Housing keeping resulting in slips, trips and falls	High (4C)	Ensure good housekeeping is carried out and area is clear of debris	Medium (2C)	Scott Pearson
	Injury/illness due to working outside e.g. sunburn, heatstroke and skin cancer	Extreme (5C)	Rotation of outdoor work if possible Suncream and hats	Low (1D)	Scott Pearson

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	Smoke and fires	Extreme (5B)	Remove combustible materials from immediate work area along with ignition sources Fire extinguishers to be at the ready	Low (1D)	Scott Pearson
	Injury due to failure of equipment	Extreme (5B)	Test and tagging of power tools is up to date with all tools having the appropriate guards etc. Check that the blades are secure and not damaged and the correct locking nut is used Items being cut or drilled are secured	Low (1D)	Scott Pearson
	Electric shock	Extreme (5B)	RCD's (earth leakage) to be used Do not coil or uncoil extension leads whilst turned on	Low (1D)	Scott Pearson
	Open pits, cable trays, flooring and other hazards to the public	High (3C)	Tape or use 'witches hats' around all areas open or which could cause a risk off identifying that there is a hazard. Only open areas where work is being performed and close once work in that area is complete.	Medium (2C)	Scott Pearson

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Carrying out the task	Burns	Medium (3D)	Wear the correct clothing and gloves Work in an area where others do not come in contact with sparks etc	Low (1D)	Scott Pearson
	Fire or explosion	High (4D)	Area free from flammable materials and fire extinguisher at the ready Consider where the sparks are going	Low (1D)	Scott Pearson
	Electrocution	Medium (4E)	Test and tagging is current Leads are protected from water and mechanical damage No cutting or grinding to undertaken around extension leads What's on the other side of what is being drilled/cut? Isolate the items being worked on and LOTO.	Low (1E)	Scott Pearson
	Eye injuries	Medium (4E)	Eye protection to be worn when cutting or grinding	Low (1E)	Scott Pearson

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	Injury due to failure of equipment	Extreme (5B)	Test and tagging of power tools is up to date with all tools having the appropriate guards etc. Check that the blades are secure and not damaged and the correct locking nut is used Items being cut or drilled are secured	Low (1B)	Scott Pearson
	Noise	Extreme (5C)	Ear protection to be worn by machinery operator. Be mindful of others in the work area	Medium (2C)	Scott Pearson
	Falls from heights	Extreme (3A)	Ensure the area is clear of debris etc. Ensure the area stable and level Setup ladders as per manufacturer's instructions Check the ladder is good condition Using witches hats, place around base of ladder to identify the exclusion zone	Medium (3D)	Scott Pearson
	Excavation	Extreme (3A)	Ensure site staff are notified of excavation requirements. They may be able to inform of underground service locations. If possible, use "Dial Before You Dig"	Medium (2C)	Scott Pearson

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			If a machine (excavator/backhoe) is being used, have a "spotter" watching the excavation. If possible, use a vacuum to excavate the trench		

I understand and agree to the conditions of this JSA					
Print name	**Signature**	**Date**	**Print name**	**Signature**	**Date**
Scott Pearson					

Potential hazards	Check questions	Recommended control measure
Gas, Dust, Fumes	Are there any air pollutants now? Will there be any air pollutants generated? Are there any fire alarms nearby that may be set off?	- isolate, wash down or wear PPE - provide ventilation away from workers and restrict access - disconnect and arrange additional warning devices
Noise	Will you need to shout to be heard?	- move work away or provide PPE
Spills	Can something be spilt or overflow? If so, can harm happen to people, area or plant?	- control flows or re-route flows - erect bunds or barricade the area
Environmental	If something is spilt or was released, would the area be affected?	- consult with the Environmental Adviser to provide a plan
Electrical	Is there live equipment in the area?	- isolate or barricade hazard
Mechanical	Is there any crush points or moving parts?	- isolate or barricade hazard , or move work away from hazard
Chemical	Are there any hazardous chemicals in the area? Will you be handling any chemicals?	- isolate or minimise exposure times - attach MSDS and wear PPE
Temperature	Is the work area hot or cold? Can you contact very hot or cold surfaces?	- reduce working times and wear PPE - provide barriers or distances from sources
Pressure	Are there any high pressures present?	- isolate, protect or barricade pressure sources from work area
Manual handling	Will the work involve lifting, carrying, pushing, pulling? Will the work be in an awkward position?	- reduce heavy loads, use lifting teams or mechanical means - reduce working times and share duties
Ignition sources	Will the work involve cutting, welding or sparks?	- restrict access and place protective guards - determine if a “permit to work” is needed
Light	Is the work area dark?	- move job or install lighting to the area
Rock Falls	Can someone be struck by a rock while carrying out the work?	- ensure the area has been washed down and ground control mechanisms applied (scaling, roof bolting, meshing)
Explosives	Will the work involve the use of explosives? Could there be any explosives in the area?	- ensure the person is competent in the handling of explosives - check the area prior to carrying out the work