JOB SAFETY ANALYSIS (JSA)

TĀKINA EVENTS

This Job Safety Analysis (JSA) is a site-specific documented approach to tasks, which are required to be risk rated and managed.

SECTION 1: JSA DETAILS			
Event Name		JHA No.	
Task Description			
Is a Permit Required? What type?	☐ Confined Space ☐ Hot Work ☐ Working At Height	Other	
List procedures and other documents related to the work that should be available and understood prior to undertaking task.			

SECTION 2: TOOLS AND EQUIPMENT	
List PPE required.	☐ High Vis Vest ☐ Ear Protection ☐ Hand Protection ☐ Foot Protection ☐ Safety Glasses ☐ Hard Hat
List training / licenses / certificates required for workers Note: Work requiring high-risk activities, e.g., scaffolding, dogging, rigging, crane, hoist, and forklift operation.	

SECTION 3: EMERGENCY DETAILS		
Emergency Details: *(Enter phone or contact points in the event of an emergency)*		

SECTION 4: SIGN OFF					
Supervisor Name		Signature		Date	
H&S Manager		Signature		Date	
JSA Team Members Names					

SECTION 5: JSA TABLE				
	Job Steps *(List job steps one at a time, answering 'hazards' and 'controls' for each before proceeding to the next job step)*	**What 'Hazards' (damaging energies) are associated with the job step?** *(Refer to appendix – damaging energies - Is there something that can injure or harm you, damage equipment or the environment)*	**What 'Controls' will you use?** *(Elimination, Substitution, Engineering, Administration, PPE)*	**After you apply the Control, what is the risk reduced to?** *(Refer to appendix - low, medium-low, medium-high, high)*
	1. List the job step.	2. Identify the hazards- use your hazard table if you need help.	3. List your controls – refer to procedures, permits, hazard/risk register or other information.	4. Using the risk matrix, determine the risk level.
1				
2				
3				
4				
5				

WORKGROUP MUST SIGN ONTO JSA

I acknowledge that I have read, understood, and will comply with the requirements of the JSA and any associated documentation. I am fit, trained and competent to complete the risks assigned to me.

NAME	DATE	SIGNED	NAME	DATE	SIGNED

The JSA is valid for the duration of the task. If significant changes occur, then a new JSA must be completed.

APPENDIX 1: ASSESSING THE RISK OF A WORK ACTIVITY (REFER TO SECTION 4 OF JSA TABLE)					
Step 1: JSA Detail - Complete **Sections 1, 2 and 3** of the JSA.					
Step 2: List Job Steps - In **Section 5** of the JSA table, list the job steps required for the activity in the order that they will be performed.					
Step 3: Identify Hazards (damaging energies) associated with the work activity (What can injure or harm?) Complete section 5 of the JHA.					
Hazard Type	**Hazard**	**Hazard Type**	**Hazard**	**Hazard Type**	**Hazard**
Climatic / Natural events	Wind, hail, rain, extreme weather conditions	**Electrical / magnetic**	Low / high voltage, AC voltage, DC voltage, loss of power, magnetic fields, static electricity, control systems, DC earth leakage	**Gravity**	Stability (ground / structural stability, fall from one level to another (object, person, material),
Work Environment	Confined spaces, remote activities / isolation, slippery conditions, uneven or broken ground, pedestrians / people in work area, use of ladders / scaffolding	**Mechanical**	Pinching, crushing, pulling, severing, grinding, scraping, impact, puncturing, moving/rotating equip.	**Substances**	Chemicals, hydrocarbons, raw materials, products, gases, fumes, fibres, dust, flammables.
Lighting	Low/high level glare	**Waste**	Pollution, waste creation/disposal / recycling, spill	**Vehicles/ transport**	Vehicles (heavy, light, medium 4WD)
Ergonomics	Lifting, pushing, pulling, bending, twisting, whole body/hand and arm vibration, work area design, hand tool, use awkward/sustained postures, repetitive motion actions	**Thermal / Fire / Explosion**	Ambient/radiant heat, cold stress, heat stress, contact (cold, hot), extreme cold/heat, fire.	**Radiation**	Electromagnetic, infrared, laser, radio frequency, microwave, ultraviolet, welding flash, x-ray
Personal / behaviours	Fatigue, shift work, fitness for work (medication effects, reduced physical/mental capacity)	**Sound / Vibration**	Continuous/impact noise, community issue noise/vibration	**Biological**	Legionella, infection (viral, bacterial), bites (animal, insect) fauna, flora,

STEP 4: DETERMINE AND IMPLEMENT CONTROLS (USE THE HIERARCHY OF CONTROLS BELOW TO DECIDE THE TYPE OF CONTROL TO BE IMPLEMENTED, ELIMINATION BEING THE MOST PREFERRED OPTION

Controls are identified in job procedures however if these are not available, this JSA becomes your Safe Work Method statement therefore controls shall be in accordance with industry / Australian / New Zealand Standards and any legislative requirements. Controls are then applied in order of effectiveness. Determine controls required for the work, add to **Section 5** and implement.

Controls (Hierarchy of Control)	**Effectiveness**	**Descriptor**	**Examples**
Elimination *(most effective)*	Wherever possible, eliminate the hazard in the first instance.	Removing the hazard from the work sequence	Completing tasks at ground level instead of at height thereby removing the risk of a fall from height
Isolation	Where elimination is not possible, isolate the area	Isolating to a risk with something posing a lesser risk	Using a less hazardous chemical
Engineering	Where neither elimination nor substitution is possible, consider an engineering solution, such as isolation, barricading or guarding.	Physical measures to separate workers from hazards	Applying barricading to prevent inadvertent access or handrails to prevent a fall from height
Minimisation	Where neither elimination, substitution nor engineering is possible, develop safe work procedures that will assist persons perform the work safely.	Application of training, procedures, method statements	Provision of training in hazards associated with the work to increase awareness
Personal Protective Equipment *(least effective)*	This is the least effective method and relies heavily on persons selecting, using and maintaining PPE in accordance with their specifications. PPE on its own cannot be used as the only source of control.	Use of PPE to reduce exposure	Use of P2 masks when working with asbestos to reduce the risk of exposure to airborne contaminants

STEP 5: ASSESS THE RISK (CALCULATE THE RISKS USING THE LIKELIHOOD, CONSEQUENCE AND RISK MATRIX)

Determine the possible consequences of an incident should only the existing controls be in place. This calculation is done by looking at the hazards identified within the job step and determining the likelihood of the incident happening (use the likelihood table) and the consequence should it happen (use the consequence table). Using the risk matrix (consequence on the left and likelihood on the top), the risk level is determined where these two columns meet. Enter the risk level to your JSA table at **Section 5**.

LIKELIHOOD TABLE (descriptors)		**CONSEQUENCE TABLE (descriptors)**		
Likelihood	**Description**	**Consequence**	**Description - Personal (Health and Safety)**	**Financial (loss/damage)**
Rare	Unlikely to occur and only in exceptional circumstances	Severe	4-10 fatalities (or permanent Total Disabilities)	$50M to $250M
Unlikely	Once in the life of the business	Major	1-3 Fatality (or permanent Total Disabilities)	$5M to $50M
Possible	Once a year	Moderate	Major Injury / Illness Permanent loss of bodily function (<30%), Lost Time Case > 2 days	$500K to $5M
Likely	Once a month	Minor	Slight Injury / Illness (reversible), Medical Treatment Case	$50K to $500K
Almost Certain	Once a week	Slight	Low level short term impact / Minor First Aid / No medical treatment	<$50K

RISK MATRIX	MINIMAL	MINOR	MODERATE	MAJOR	SEVERE
Almost Certain Expected to occur in most instances <86% probability of occurring Event occurs on a frequent basis	**5**	**10**	**20**	**30**	**70**
Likely Will probably occur in most instances 66 - 85% probability of occurring Event occurs several times per year	**4**	**8**	**16**	**24**	**56**
Possible 50/50 that it might occur at some time 35 - 65% probability of occurring Event occurs once or twice per year	**3**	**6**	**12**	**18**	**42**
Unlikely Could occur at some time 15-34% probability of occurring Event occurs from time to time	**2**	**4**	**8**	**12**	**28**
Rare May occur in exceptional circumstances <14% probability of occurring Event known to occur	**1**	**2**	**4**	**6**	**14**

STEP 6: APPROVAL TO PROCEED
Arrange sign off of **Section 4** of the JSA. *Note: All JSA's shall be signed off by the Supervisor. Where hazards are identified as 'high' or higher and where these cannot be reduced further, the Te Papa Health and Safety Manager shall review to determine if the work should continue and what strategies shall be implemented address the risks raised.*

TRAINING AND QUALIFICATION REGISTER

TRAINING AND QUALIFICATION REGISTER				
First and last name	**Key role or task on this job**	**Training and/or qualifications relevant to this job (EWP, forklift, first aid)**	**Training expiry date**	**No. of years experience**

Examples – **EWP** (elevated work platform), **FL** (fork lift), **FA** (fall arrest), **SCA** (scaffold), **DOG** (dogman), **MP** (mobile plant – specify type), **RELECT** (registered electrical worker), **ELTAG** (electrical testing and tagging)