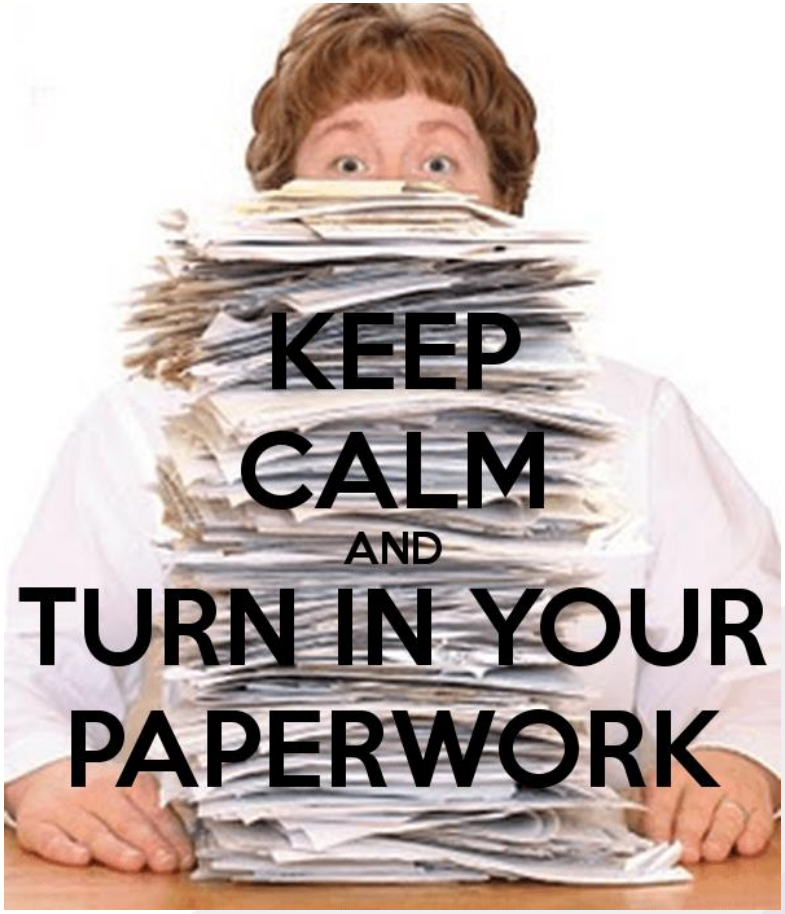
JSA? SWMS? TA? SOP? Making sense of it all!!



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This Webinar will clarify …

- What is a JSA, SWMS, TA, SOP
- What are their benefits
- How to successfully complete them; and
- The future of these type of documents

What they are not …

- Just a compliance exercise
- Something that only comes out as a last resort
- Something that does not reflect how work is done
- A pain in the a#@s&

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What they are …

- They make sense
- They create engagement
- They create understanding
- They manage risk and assist with training
- They help with planning work
- They are a point of difference with your clients
- They help prevent injuries

When should they be used …

- Particular risks specified by regulation
- Any unfamiliar or complex task
- When required by a contract/Pre-qual
- As part of a Permit to Work
- If your risk assessment results in CRITICAL or HIGH level or risk
- Notifiable construction work

What is in them …

- Safe Work Methodologies should have:
  - the job details
  - the people
  - the process: Step-by-step
  - the hazards and assessed risk
  - the controls
  - the training, plant and equipment requirements

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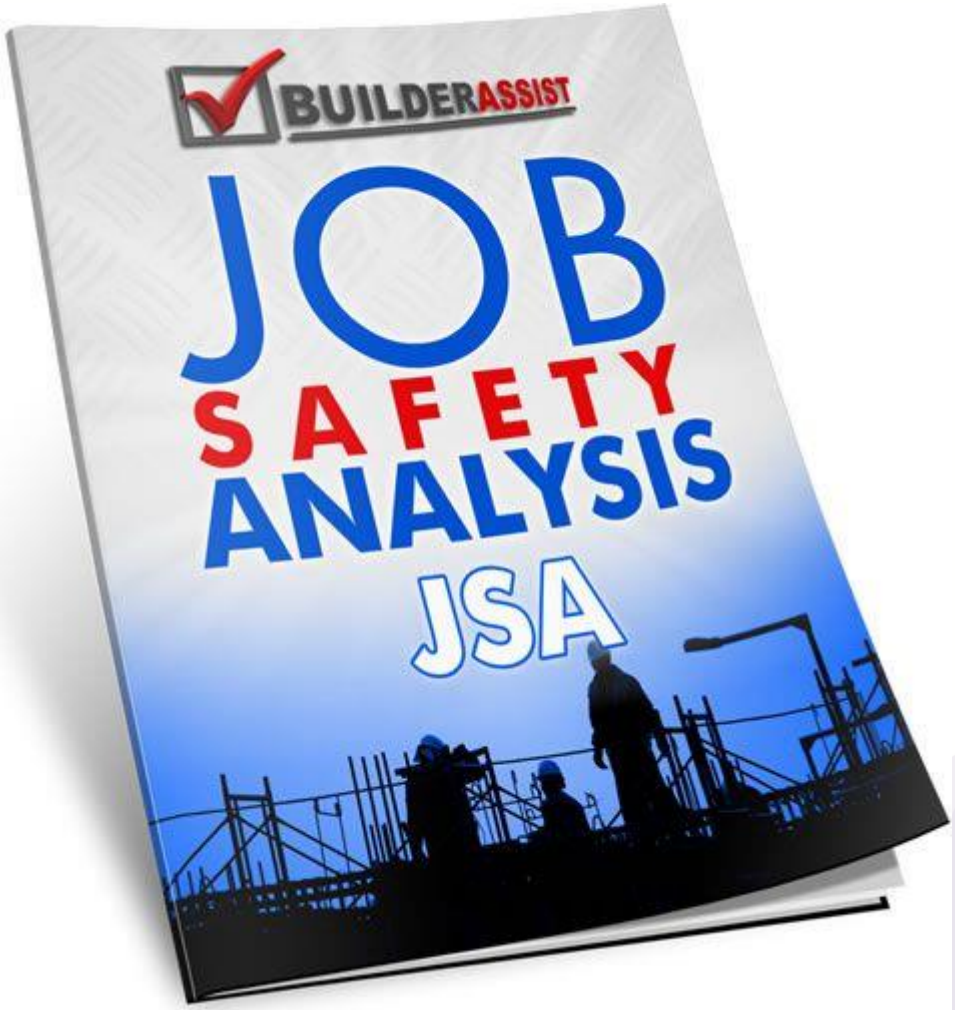
TA – Task Analysis

- Breaks a skill down into smaller components
- Includes a detailed description of:
  - manual and mental activities,
  - task and element durations
  - task frequency, allocation, complexity
  - environmental conditions
  - necessary clothing and equipment; and
  - any other unique factors

TA – Task Analysis

- It can be used to assist with:
  - Selecting new employees
  - Training
  - Tool, equipment or process design
- Promoted heavily by Site Safe as a Safety and Risk Management Tool



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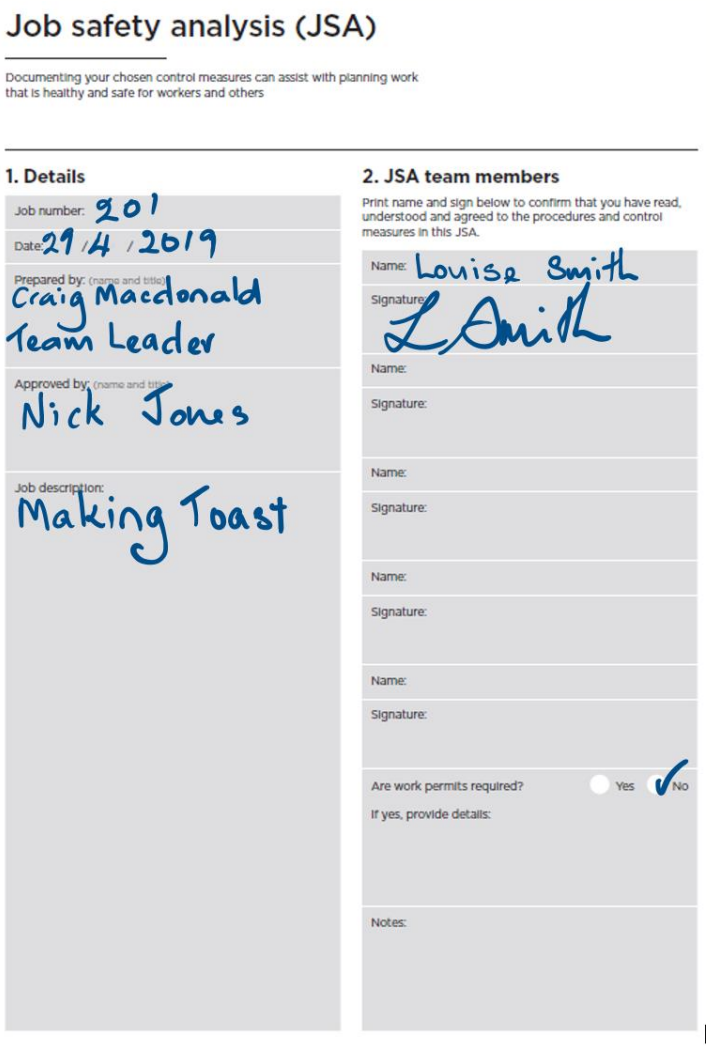
JSA – Job Safety Analysis

- Integrates health and safety into a task or job operation
- Identify:
  - each basic step of the job
  - potential hazards and controls for each step
- Focuses on the relationship between the worker, the task, the tools, and the work environment.

Starting Information



Job safety analysis (JSA)

Documenting your chosen control measures can assist with planning work that is healthy and safe for workers and others

1. Details

Job number: 201

Date: 29 / 4 / 2019

Prepared by: (name and title) Craig Macdonald Team Leader

Approved by: (name and title) Nick Jones

Job description: Making Toast

2. JSA team members

Print name and sign below to confirm that you have read, understood and agreed to the procedures and control measures in this JSA.

Name: Louise Smith

Signature: L Smith

Name:

Signature:

Name:

Signature:

Name:

Signature:

Name:

Signature:

Are work permits required? Yes ✓ No

If yes, provide details:

Notes:

- Job Details
- People Details, creator and users

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The guts of it

Job safety analysis (JSA)

For each step of a job, identify the hazards, the risks to deal with and their priority, and the control measure/s

JOB STEP	HAZARD/S	IDENTIFY RISKS YOU NEED TO DEAL WITH	PRIORITY/URGENCY Pay close attention to your high priority risks	CONTROL MEASURE First try to eliminate risk	CONTROL MEASURE If elimination not possible: – substitute and/or – isolate and/or – use engineering control measures	CONTROL MEASURE If any risk remains: – use administrative control measures and/or – PPE (PPE is least effective; should not be first or only control measure considered)
Cut bread	using a Sharp Knife	Cuts to hands & fingers	HIGH	Buy Sliced bread	N/A	N/A
Cook Toast	Electricity	Electrocut?:	MEDIUM	N/A	Test & Tag good Plug Pre-start Checks	Training
	Hot Toaster	Burns Fire	HIGH	N/A	Toast Tongs clean Toaster Ventilation	Training

Identify plant, equipment and tools required for healthy and safe work for this job	Toaster With Current Test/Tag Toast Tongs
Identify worker skills, training and/or supervision required for healthy and safe work for this job	Toaster Induction Level 5

For further information, refer to:

1. Material Safety Data Sheets
2. HSWA and relevant regulations
3. WorkSafe resources such as guidance (see worksafe.govt.nz)
4. Industry-specific guidance
5. Permit attachments

- Job steps
- Hazards
- Risks
- Risk level
- Controls
- Plant/Equip
- Training

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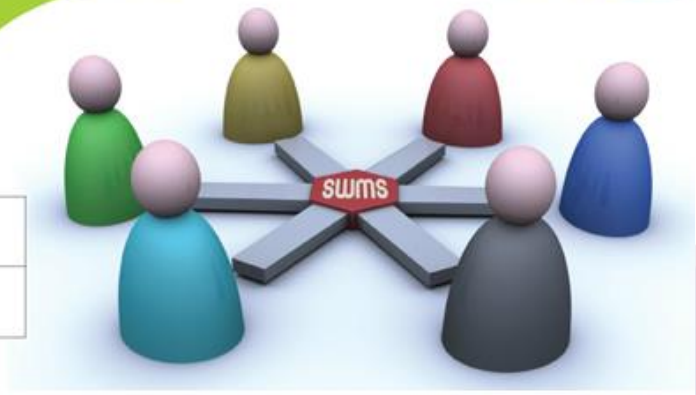
swms safe work method statement



COMPANY:
DIVISION:

Starting Information

SAFE WORK METHOD STATEMENT

Company/Client Name:		Site Name:		Site Address:	
SWMS No.		Work Description:			
This SWMS must be prepared before any high-risk work can commence.		Date Approved:		Date Review Due:	
SWMS Reviewed/Approved by:					
Is isolation of an energy source required?	☐ Yes – Hazard Identification **must** list the energy sources and isolation control methods			☐ No	
If a Permit to Work is required – describe:					

ACTIVITY REQUIREMENTS

PPE Requirements (mandatory or as determined by initial risk assessment):		High Vis Clothing	☐		Safety Glasses	☐		Safety Gloves	☐		Respirator	☐
		Face Shield	☐		Long Clothes	☐		Fall arrest System	☐	Other		☐
		Hard Hat	☐		Safety Boots	☐		Hearing Protection	☐	Other		☐
Plant and Equipment:				Material Requirements:							
Employee Requirements:											
Other PPE Requirements:											
Maintenance/Prestart Checks Required:											
Other:											

People

WORKER TRAINING

I acknowledge that I have reviewed this SWMS, I clearly understand the controls, and my qualifications and competency are current to undertake the activity. Further, I will follow the controls and processes outlined in this SWMS. I confirm was asked for input/comment on issues with the SWMS content previously to, or at the time of review.

Name	Signature	Date	Name	Signature	Date
		/ /			/ /
		/ /			/ /
		/ /			/ /
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The guts of it

TASK IN ORDER OF COMPLETION	POTENTIAL HAZARDS AND RISKS	RISK LEVEL BEFORE CONTROL	WHAT WE WILL DO TO MAKE IT SAFER	RISK LEVEL AFTER CONTROL
1. Establishing site safety requirements	Personnel unprepared to manage risk leading to strain and sprains, or Slips, trips and falls or other accidents.	15 High	• Identify handling requirements prior to going to site. Get or arrange assistance from another person, fetch a trolley or break the load down into smaller parts	10 Med
2. Loading Trailer with bags of cement	Lifting bags of cement is a hazard because poor lifting technique could result in strains and sprains	12 Med	• Arrange for supplier to deliver pre-mixed cement in bulk.	3 Low
3.			•	
4.			•	

Risk Assessment Info

TABLE 3 – QUALITATIVE RISK ASSESSMENT MATRIX

			Consequence				
			1	2	3	4	5
			Non - significant	Low	Moderate	Major	Significant
Likelihood	5	Almost Certain	5 Medium	10 Medium	15 High	20 High	25 High
	4	Likely	4 Low	8 Medium	12 Medium	16 High	20 High
	3	Possible	3 Low	6 Medium	9 Medium	12 Medium	15 High
	2	Unlikely	2 Low	4 Low	6 Medium	8 Medium	10 Medium
	1	Rare	1 Low	2 Low	3 Low	4 Low	5 Medium

RISK LEVEL

Risk Rating Colour	Action
Low	Okay for now. Record and review regularly, and if any equipment/people/materials/work processes and procedures change.
Medium	Stop work, isolate area, and warn personnel, review of procedures, training, PPE etc. is required.
High	ACT NOW – Urgent – Stop work, isolate area, and warn personnel, do something about the risk immediately.

The risk levels require different timeframes for action. Extreme risks require immediate action; Low risks may not need any actions. Use the hierarchy of controls in *Table 4* to reduce the residual risk to as low as possible.

TABLE 4 – HIERARCHY OF CONTROLS

The consideration of controls in all risk assessments, Safe Work Method Statements (SWMS) and Safe Work Procedures (SWP) developed will be based on the "Hierarchy of Controls", with elimination being considered the most effective control through to Personal Protective Equipment (PPE) controls being considered the least effective control.

CONTROL MEASURE	DESCRIPTION
Elimination	Controls the risk by eliminating the hazard e.g. positioning controls of equipment at ground level eliminates the risk of falling from height.
Substitution	Replaces the hazard e.g. plant or substance with another that has a lower and/or zero risk. This may also eliminate the risk.
Isolation	Isolate the hazard from people e.g. locked access to a hazard or lock the first level of a ladder.
Engineering	Remove or separate people from the source of the hazard e.g. guarding, noise barriers etc.
Administrative	Use policies, procedures, signs, staff rotation and training etc. to minimise the effects of the risk.
Personal Protective Equipment	Provide equipment or clothing designed to protect the worker e.g. ear muffs, safety glasses, steel capped boots etc.

SOP – Safe Operating Procedure

SAFE OPERATING PROCEDURE

MANUAL HANDLING

Mandatory PPE

	High Vis Clothing		Safety Glasses		Hard Hat		Safety Boots
	Safety Gloves						

Potential Hazards

A - Back strain	D – Discomfort, Pain, Injury	G - Lacerations
B - Torn ligaments	E - Property damage	H - Bruises
C - Trapped fingers	F - Hernia	

Pre-Operational Safety Checks

1. Position feet as close to item as possible with adequate width for stability (shoulder width apart).
2. Face load to ensure straight back and bent knees.
3. Get a firm footing on a stable surface.
4. Ensure knees are bent and weight of lift is taken by legs.
5. Place hands in suitable position to allow adequate grip of part.
6. Extend arms and ensure lift can be made between waist and shoulder height.

Operational Safety Checks

1. Take weight of item in legs and raise body slowly and smoothly
2. Maintain natural posture of the spine, (i.e. back relaxed and straight)
3. Maintain firm grip throughout lift (ideally with hands diagonally opposed)
4. Face path of travel so that no twisting is involved when walking away. If unable to do so, turn feet in direction of travel before body.
5. Keep item close to your body and carry weight of item as low as possible – close to waist
6. Don't bend back – bend your knees and gently lower item to surface

Team Lifting

Recommended maximum lift for 2 people is 50 kg's. Always ask for help with heavy loads.

1. Ensure both individuals have similar height / strength and ability before lift
2. Ensure item is balanced evenly between individuals (at each end of object)
3. Establish who will coordinate lift (e.g. clear communication saying 'Ready 1, 2, 3 – lift')
4. Ensure lift is undertaken smoothly and maintain eye contact with other person
5. When placing item on ground / bench coordinate as above and consider where hands are placed to reduce risk of crush or other injuries.

Lifting Equipment in Workplace

Lifting equipment (including trolleys, jack stands and platforms) require ongoing maintenance and all damage must be reported. When using lifting equipment. If equipment is damaged / faulty, follow lock out / tag out procedures.

1. Ensure safe work load (SWL) is followed.
2. Unit is operated according to manufacturer's instructions.
3. Item is placed in center of unit and is stable on platform or sling.
4. Only approved and appropriate lifting attachments are used.

Forbidden

1. Lift or carry items which exceeds your personal capacity.
2. Lift goods above shoulder height or away from body.
3. Handle goods by pulling or jerking item.
4. Twist and bend to lift as serious injury can be sustained.
5. Lift items when facing opposite direction.
6. Handle objects if outside personal lifting capacities e.g. get second person or use mechanical aids.

General Application/Comparison

	TA	JSA	SWMS	SOP
Job Details	☑	☑	☑	Task/Equip. Name
Creator Details	☑	☑	☑	Document Control Only
Users Sign	☑	☑	☑	Training/Information Doc.
Job Steps	☑	☑	☑	☑
Hazards	☑	☑	☑	☑
Risks	☑	☑	☑	☑
Risk Analysis	N/A	☑	☑	N/A
Controls	☑	☑	☑	☑
Plant/Equip.	☑	☑	☑	N/A
Training	☑	☑	☑	N/A
PPE	☑	☑	☑	☑
Low Risk Work	N/A	N/A	N/A	☑
Med Risk Work	☑	☑	☑	☑
High Risk Work	☑	☑	☑	☑

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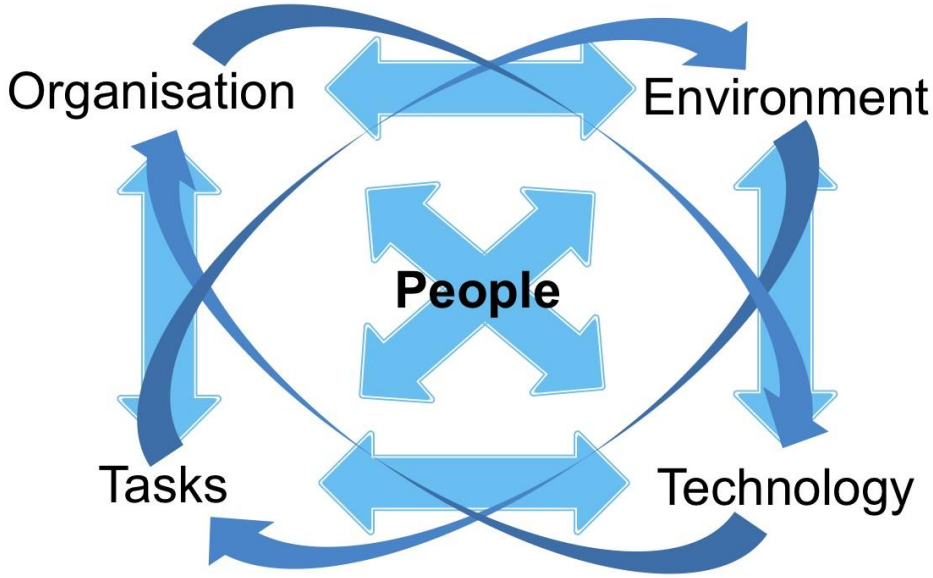
‘Work continues to be a vital component of modern living. Most people spend a third of their adult life at work, contributing to their own wellbeing and the improvement of society.’

‘The world of work is undergoing rapid and fundamental change. Powerful trends are imposing themselves upon the workforce’

Four Impacts on H&S @ Work

- Technology
- Working remotely
- Maintaining meaningful human connections
- Climate Change

Systemic influences on HUMAN performance



"HUMAN FACTORS"

Carayon et al. Q*ual.Saf Health Care* 2006, 15 Suppl 1:i50-i58.

Human Factors and Ergonomics

- Environmental, organisational and job factors, and human and individual characteristics, which influence behaviour at work in a way which can affect health and safety
- There are three interrelated aspects that must be considered:
  - the job
  - the individual; and
  - the organisation

The Job

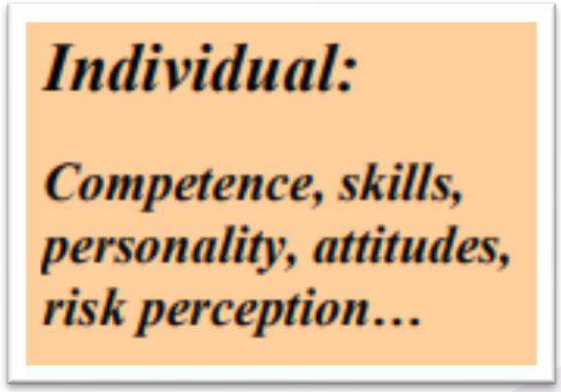
Includes areas such as the nature of the task, workload, the working environment, the design of displays and controls, and the role of procedures

Job:

Task, workload, environment, display & controls, procedures …

The Individual

Includes his/her competence, skills, personality, attitude, and risk perception



The Organisation

Includes work patterns, the culture of the workplace, resources, communications, leadership and so on

Include in your TA/JSA/SWMS/SOP

- Walk-Through/Talk-Through
- Hierarchical Task Analysis
  - The goal
  - Operations and sub-operations
  - Plans
  - Preconditions
- Time-line Analysis