

## SMART SLAB RISK ASSESSMENT -SAFEPEG®

<p><b>Project Title:</b> General use and installation of SAFEpeg® on construction sites</p>	<p><b>Project Number:</b></p>
<p><b>Client:</b> Smart Slab</p>	<p><b>Date:</b> 10/5/19 Rev1</p>

*This Risk Assessment has been developed in accordance with AS/NZS ISO 31000:2009 Risk management - Principles and guidelines and to comply with the requirements of WHS Act 2011 and WHS Regulation 2017.*

*This form is to be used in conjunction with the RSS PRO001 Risk Management Procedure.*

### **1. PURPOSE OF RISK ASSESSMENT:**

To conduct a risk assessment for the general use of SAFEpeg® as an alternative to the traditional star picket for construction of safety fencing, barricades, silt fences and other common application of star pickets on construction sites. This assessment includes the general installation and use SAFEpeg® when installing formwork on construction sites. The SAFEpeg® is part of the SMARTSLAB Building System.

### **2. SCOPE OF RISK ASSESSMENT:**

This assessment examines the risks associated with the general use of SAFEpeg® as an alternative to traditional star pickets for fencing and barrier construction on construction sites, including the use with flag roping to provide separation of work zones.

The SAFEpeg® can also be used in support of formwork for ground slabs on construction sites.

The SAFEpeg® uses on construction sites includes, but is not limited to, the following;

- Construction of temporary safety barriers using flag rope
- Construction of temporary safety barriers using safety mesh
- Construction of temporary silt fences
- Construction of temporary wire fences
- Construction of temporary barriers to delineate work zones and separate pedestrians from plant and other construction equipment

The SAFEpeg® is an alternative to the traditional star picket used for the applications stated above.

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Once installed the SAFEpeg® does not require the application of plastic end caps to protect workers from laceration and potential puncture injuries.

Assumptions

- All workers on site have been inducted and wear correct PPE
- All workers involved in the task have been trained on the controls required as defined in the SWMS.

Exclusions

- Installation of other fencing types and barriers on construction types

**3. RISK ASSESSMENT TEAM MEMBERS:**

Name	Position/Role	
Chris Hadrill	Risk Engineer	
Brad Golledge	Smartslab	

Report prepared by



Chris Hadrill,  
BE (Mech), MIE Aust, M OHS,

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Exemplar Global Lead Auditor OHS, Environment, Quality  
ChOHSP SIA(Aust), RSP (Aust)

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		TASK			CURRENT RISK RATING			RECOMMENDED CONTROLS	RESIDUAL RISK RATING		
NO.	STEP IN OPERATION	Risk Event- POTENTIAL HEALTH, SAFETY OR ENVIRONMENTAL HAZARDS	Causes	CURRENT CONTROLS with existing starpickets	Consequence	Likelihood	Risk Rating	Using SAFEpeg®	Conseq	Likelihood	Risk Rating
1.	Install steel fence post in preparation for attaching barrier material Barrier materials may include, but is not limited to; <ul style="list-style-type: none"> <li>• Flag rope</li> <li>• Safety mesh</li> <li>• Silt mesh</li> <li>• Chain wire fencing</li> </ul>	Workers exposed to musculoskeletal injury when driving in steel fence post using; <ul style="list-style-type: none"> <li>a) Sledgehammer or similar tool</li> <li>b) Star picket driver</li> </ul>	<ul style="list-style-type: none"> <li>• Use of sledgehammer</li> <li>• Sledgehammer slips of top edge of star picket</li> <li>• Use of star picket driver</li> </ul>	<ul style="list-style-type: none"> <li>• Workers trained in safe hazardous manual tasks techniques (Admin Control)</li> <li>• Workers trained on safe use of hand tools such as sledge hammers (Admin Control)</li> </ul>	3	C	H	<ul style="list-style-type: none"> <li>• SAFEpeg® has larger target surface area for sledgehammer to contact reducing risk of tool slippage</li> </ul>	3	B	M
		Worker injured (lacerations) by sharp edges on top of steel fence post	<ul style="list-style-type: none"> <li>• Top edges of star picket are sharp</li> <li>• Damage to top edges of star picket from</li> </ul>	<ul style="list-style-type: none"> <li>• Workers work in accordance with SWMS (Admin Control)</li> </ul>	3	C	H	<ul style="list-style-type: none"> <li>• Sharp edges are eliminated when SAFEpeg® is utilised</li> </ul>	3	B	M

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**Risk and Safety Solutions**

		Workers at heights above steel post exposed to severe puncture injury if they fall onto steel post	<p>sledgehammer exacerbate sharp edges</p> <ul style="list-style-type: none"> <li>• Top edges of steel post are sharp and have small surface area</li> </ul>	<ul style="list-style-type: none"> <li>• Placement and attachment of plastic protective safety caps on each steel post (Admin control as caps often fall off)</li> </ul>	4	C	H	<p>(Engineering Control)</p> <ul style="list-style-type: none"> <li>• Larger flat surface area of SAFEpeg® eliminates need for plastic caps (Engineering Control)</li> <li>• SAFEpeg® design means labour to install and replace plastic end is eliminated</li> </ul>	4	A	M
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**4. FILING OF COMPLETED PAPERWORK (RECORDS):**

- Not applicable

**5. RELATED CODES OF PRACTICE & AUSTRALIAN STANDARDS:**

- NSW WHS Act 2011
- NSW WHS Regulation 2017
- NSW Construction Work Code of Practice 2014
- Managing the Risks of Plant in the Workplace Code of Practice May 2018

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## 6. RISK MATRIX

**7. Table 1 - Consequence**

ITEM	Health & Safety	Environmental	Financial
Insignificant	Minor First Aid	Limited Damage	\$0 - \$20,000
Minor	Medical Treatment required	Minor Effect	\$20,000 - \$250,000
Moderate	Serious Injury, LTI	Moderate Short-Term Effect	\$250,000 - \$500,000
Major	Permanent Disability	Serious Medium-Term Effect on Ecosystem	\$500,000 to \$1 Million
Catastrophic	Fatality	Very Serious, Long Term Effect on Ecosystem	Greater than \$1 Million

**Table 2 - Likelihood**

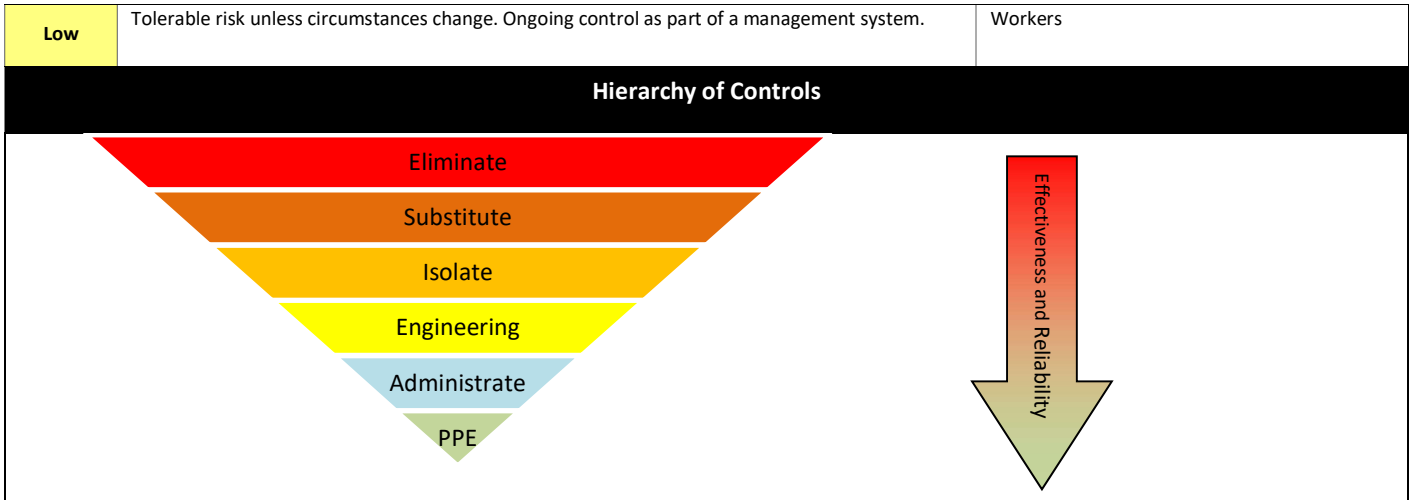
Level	Descriptor	Expected
E	<b>Almost Certain</b>	>95% Highly likely to occur in most circumstances.
D	<b>Likely</b>	60% - 95% Known to occur or "It has happened".
C	<b>Possible</b>	30% - 60% Could occur, "I've heard of it happening".
B	<b>Unlikely</b>	5% - 30% Not likely to occur.
A	<b>Rare</b>	<5% Little or no chance of an occurrence.

**Table 3 – Risk Level Matrix**

Likelihood		Consequences				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Almost Certain	E	Medium	High	Extreme	Extreme	Extreme
Likely	D	Medium	High	High	Extreme	Extreme
Possible	C	Low	Medium	High	High	Extreme
Unlikely	B	Low	Low	Medium	High	High
Rare	A	Low	Low	Low	Medium	High

**Table 4 – Risk Ranking**

Risk Rank	Required Action	Authority for Continued Toleration of Current Risk Level
<b>Extreme</b>	Stop related risk exposed activity immediately. Identify & implement risk treatments to reduce risk so far as is reasonably practical (SFARP) and at least High or lower.	Director
<b>High</b>	If considered at as low as is reasonably practical (ALARP), management must be notified and must accept that risk is reduced SFARP	Site manager/supervisor
<b>Medium</b>	If considered at ALARP management must be notified and must accept that risk is reduced SFARP	Site manager/supervisor



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