

# Excavation Adjacent To Live Running Line

Issue date: 11/04/08

Review date: 18/02/11

<b>SWMS number:</b> SMS-06-SW-1064	<b>SWMS Name:</b> Excavation Adjacent To Live Running Line			<b>SWMS Team:</b> Track Review Team
<b>Custodian (Position):</b> Track Works Manager Commercial / Renewals	<b>Assumptions:</b> Site specific risks are addressed and assessed in pre- work briefing			
<b>Approving Authority (Position):</b> Safety and Quality Manager, Commercial / Renewals	<b>Equipment/Plant/Tools:</b> <ul style="list-style-type: none"><li>Excavator / Crawler Loader with Restrictors</li></ul>	<b>Records/Reporting:</b> <ul style="list-style-type: none"><li>Worksite Protection Plan</li><li>Pre-work Brief</li><li>Services searches</li><li>Electrical Permits</li><li>Fuel and Hydraulic Oil MSDS</li><li>Daily Plant Checklist</li></ul>	<b>Permits/licences required:</b> <ul style="list-style-type: none"><li>Excavator / Crawler Loader Operator Certificate</li><li>Electrical Permit Holder</li></ul>	<b>Content reviewed by Technical expert (SME) and RailCorp safety professional</b> (position including Div/Group) Track Works Manager & SEQ Coordinator Asset Management Group Commercial / Renewals
<b>Applicable Standards, Codes of Practice and guidance:</b> <ul style="list-style-type: none"><li>OH&amp;S Act 2000</li><li>OH&amp;S Regulation 2001</li><li>Rail Safety Regulation 2003</li><li>RailCorp Network Rules &amp; Procedures</li><li>RailCorp Safety Management System.</li><li>MSDS for all chemicals and hazardous Substances used on site</li><li>EC14 – Guide to Electrical Workers Safety Equipment</li><li>WorkCover NSW Plant Guide</li><li>AS 2958.0 2000 Earth Moving Machinery</li><li>WorkCover Code of Practice Excavation 2000</li></ul>				
<b>Personal Protective Equipment required:</b> <ul style="list-style-type: none"><li>Safety Boots</li><li>High Visibility Vests</li><li>Hardhats</li><li>Protective Clothing</li><li>Safety Glasses</li></ul> And as specified below. <ul style="list-style-type: none"><li>Gloves (as required)</li><li>Dust Masks (as required)</li><li>Hearing protection (as required)</li></ul>				

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Number	Step	Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment)	Risk ranking before controls	Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level)	Risk ranking after controls	Responsibility	Job step to be completed in accordance with (name associated documentation)
1	Obtain Electrical Permits	Live OHW could come in contact with machinery.	B+	Obtain Electrical Permit	D	Qualified permit holder to obtain permit and all staff to have electrical awareness.	Electrical Permits SMS-06-EN-0577 Work Around Elect. Equip. SMS-06-GD-0268
2	Excavation With Excavator / Crawler Loader	Fouling live track, machine hit by passing train	B+	Lookouts to warn operator of approaching Train. Excavators to be fitted with slew restrictors to prevent the machine from slewing foul of the live Road. OR Operator to ensure his machine will never work beyond the demarcation fence and bring machine to stand with bucket on ground till train has passed.  Machine will be supervised at all times.	C+	Supervisor Ticketed Plant Operator	As per SWMS for Track Reconditioning.  Excavation & Earthworks SMS-06-GD-0378 Plant SMS-06-GD-0225
		Persons hit by Machine	B+	All persons to stay at safe distance ( 6 metres) from machine And get attention of operator and have acknowledgment before passing. Then pass within the safe boundaries of the worksite. Brief staff on SWMS for Plant.	C-	Supervisor Ticketed Operator	As per Plant SWMS

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**NOTE: Each work group or team member must sign off on the SWMS to acknowledge they have been briefed about or instructed in the SWMS**

Team member name (Please print)	Team Member signature	Instructor/ Briefer name	Date	Team member name (Please print)	Team Member signature	Instructor/ Briefer name	Date

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RailCorp Level 2 Risk Matrix - Regional & Local (Workplace)			Likelihood/Frequency							Definition for Use - Regional & Local level (Workplace)
			Event Frequency	Less than once every 1000 years	Once every 100 to 1,000 years	Once every 10 to 100 years	Once every 1 to 10 years	More than once per year up to and including 10 times per year	More than 10 times per year	
			Historical (Likelihood)	Unheard of in the rail industry	Has occurred once or twice in the rail industry	Has occurred many times in the rail industry, but not in NSW	Has occurred once or twice in NSW	Has occurred frequently in NSW	Has occurred frequently at specific locations	
			Workplace Predictive (Likelihood)	Not expected to occur	May occur only in exceptional circumstances	Could occur at some time but not likely	You would expect it to occur at least once in the next 10 years performing similar activities	You would expect it to occur at least once this year performing similar activities	You would expect it to occur at least once this month performing similar activities	
Consequence				F1	F2	F3	F4	F5	F6	
			Incredible	Improbable	Remote	Occasional	Probable	Frequent		
>10 Fatalities	C6	Disastrous	B-	B+	A	A	A	A	A	<p>Used for workplace hazards and safety risks that do not consider the whole of the network. Indicatively this matrix is appropriate for use where the hazards under consideration are up to 10% of the total network exposure. This includes regional and local workplace risk assessments.</p> <p>As an example, the Level 2 scale would be used when examining the risk of slips, trips and falls on specific RailCorp platforms within a region or at a particular station, or the risk of fire within a depot.</p> <p>There are 3 options for descriptors which can be used to determine the frequency category. One set of descriptors is provided for frequency, one for historical likelihood, and one for predictive likelihood in the workplace. Choose the most appropriate.</p> <p>To score the risk, follow the steps:</p> <p>1. Identify the magnitude of the credible consequence if the risk were to occur. If applicable, risks should be considered in terms of the safety (this matrix), commercial and environmental impact (using other matrices).</p> <p>2. Identify the likelihood of this level of consequence occurring. (This is done after considering the effectiveness of the current controls in place)</p> <p>3. Score the risk using the combination of likelihood and consequence ranking.</p> <p>Note: Where there are a range of credible consequences which may lead to a different level or risks and/or where the controls may be different. It may be useful to score the risk more than once.</p>
2-10 Fatalities	C5	Catastrophic	C+	B-	B+	A	A	A	A	
1 Fatality (2-10 Major Injuries)	C4	Critical	C-	C+	B-	B+	A	A	A	
1 Major Injury	C3	Major	D	C-	C+	B-	B+	A	A	
1 or more Minor Injuries	C2	Minor	D	D	C-	C+	B-	B+	A	
First aid treatment, or illness/injury not requiring treatment	C1	Negligible	D	D	D	C-	C+	B-	A	