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OTHR Risk Register

Document Status

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A	16th May 2016		Ian Davis	PR,ID	Mngnt Committee

Revision Record

Revision	Date Issued:	Description of change:

Oberon Tarana Heritage Railway Risk Register

Risk No	Category	Risk/hazard Description	L'hd	cons	Risk Class	Control Measures	Expected Outcomes	Resid L'hd	Resid Cons	Resid Risk	Risk Owner
1	Competency	No formal training to work in the railway danger zone Injury/death	2	3	5	<ul style="list-style-type: none"> Track work will be carried out under the supervision of track maintenance personnel who hold a current Certificate II in Transport and Logistics (Railway Infrastructure) All member of the team undertaking track work must hold a current OTHR safety Induction Ensure all controls are in place and where appropriate compliance with relevant standards 	No injury/death	1	2	3	Track Manager
2	Drug and Alcohol	Under the influence of Drugs and Alcohol A danger to self, others and infrastructure.	2	3	5	<ul style="list-style-type: none"> All personnel undertaking track work have read and understood the OTHR Drug and Alcohol Policy. All members to be aware of this risk and if someone is believed to be affected request the affected person to not undertake the duty and report it to the supervisor 	Ensure all controls are in place and where appropriate compliance with relevant standards	2	1	3	Track Manager
3	Fatigue	Affected by Fatigue A danger to self, others and infrastructure.	3	3	6	<ul style="list-style-type: none"> All personnel undertaking track work have read and understood the OTHR Fatigue Policy. All members to be aware of this risk and if someone is believed to be affected request the affected person to not undertake the duty and report it to the supervisor.. 	Ensure all controls are in place and where appropriate compliance with relevant standards	2	2	4	Track Manager

4	Safe Working	Protecting self from injury and dangers Protecting self from injury and dangers Dangers from working within the rail danger zone	3	4	7	<ul style="list-style-type: none"> • Instruction, Information, Training and Supervision • Workplace hazard identification/ • Specific task instructions • Plant safety procedures - planned maintenance programs, daily safety checks, regular safety inspections • Employee safety rules/responsibilities; • All personnel undertaking track work have read, understood and signed the Induction Booklet • If you have medical condition that would affect your work inform supervisor before you start. • Have the correct (and wear correctly) the following Personnel Protective Equipment: <ul style="list-style-type: none"> 1) Hi Visibility Orange Safety Vest 2) Boots 3) Hard Hat 4) Gloves 5) Safety glasses 6) Ear protection) 7) Sunscreen • Drinking water available • One member of the team to have a two way radio or mobile phone • Keep clean water on site in case of burns • Mitigation of safety breaches by supervision 	No injury/death Ensure all controls are in place and where appropriate compliance with relevant standards	2	2	4	Track Manager
5	OHS compliance	Working alone Injury/death	3	3	6	No one is permitted to work alone within the rail danger zone. OTHR has a teaming system for all track work.	No injury/death	1	2	3	Track Manager

6	Track Access	Ensuring workers have correct possession of the track Injury/death	3	4	7	<ul style="list-style-type: none"> • Ensure supervisor has filled in the track access log book. • Red flag and witches hat is placed in the centre of the track before accessing that section. • No machines are working in that section of the track. 	No injury/death	1	3	4	Track Manager
7	Prestart safety briefing	Worksite safety Injury/death	2	4	6	<ul style="list-style-type: none"> • Site safety inductions and job safety induction are completed and signed by all workers. • All risks are identified and recorded. 	No injury/death	1	2	3	Track Manager
8	Finishing Job	Worksite safety Injury/death	2	4	6	<ul style="list-style-type: none"> • All workers are accounted for. • All equipment and tools have been returned and stored correctly. • All log books have been filled out and red flag and witches hat removed. 		2	2	4	Track Manager
9	Track Machines	Railway track become unsafe for use by track machines leading to damage to vehicle, injury and/or death	4	4	8	<ul style="list-style-type: none"> <input type="checkbox"/> Track condition maintained as per SOP-011; <input type="checkbox"/> Track inspected as per F-037 <input type="checkbox"/> Railway safety workers have the correct & current competency for any of the tasks that they are undertaking as per the General Induction Course IND006 <input type="checkbox"/> A budget is maintained by the Management Committee to complete necessary track maintenance 	No injuries to persons; No damage to track vehicles; No derailments; 100% compliance with track inspections	2	2	4	Track Manager

10	Track Machines	Rail workers being injured or killed by track machines	3	5	8	<input type="checkbox"/> All operators have the current and correct competency for the machine they are operating; <input type="checkbox"/> Site supervisors ensure all workers are aware of machinery operating within the rail corridor; <input type="checkbox"/> If necessary, worksite is fenced off to reduce the risk of workers coming in contact with the machines; <input type="checkbox"/> All workers have completed the OTHR Induction Course. <input type="checkbox"/> All machines are maintained as per the manufacturers' requirements & OTHR maintenance policy; <input type="checkbox"/> All "near misses" are investigated within 14 days and include recommendations to	No injuries to persons; Random audits of competencies to show 100% of competency compliance by workers; All "near misses are investigated within 14 days of occurrence, with all investigations having recommendations with 30 days.	2	2	4	Track Manager
11	Sleepers	Sleeper failure leading to injury or death and derailment of track machines	3	5	8	<input type="checkbox"/> Sleepers are inspected as per OTHR track standards <input type="checkbox"/> Railway workers have the correct & current competency for tasks they are undertaking as per COM-002	No injuries to persons; No damage to track vehicles; No derailments; 100% compliance with track inspections	2	2	4	Track Manager
12	Rail Joints	Rail joint damage or failure leading to injury or death	1	4	5	<input type="checkbox"/> Rail joints are inspected as per OTHR track standards <input type="checkbox"/> Railway workers have the correct & current competency for tasks they are undertaking	No injuries to persons; No damage to track vehicles; No derailments; 100% compliance with track inspections	1	2	3	Track Manager
13	Points	Points damage or failure leading to leading to injury or death	2	4	6	<input type="checkbox"/> Ensure points are inspected as per OTHR track standards <input type="checkbox"/> Railway workers have the correct & current competency for tasks they are undertaking	No injuries to persons; No damage to track vehicles; No derailments; 100% compliance with track inspections	1	2	3	Track Manager
14	Level Crossings	Road crossing damage or failure leading to injury or death	2	4	6	<input type="checkbox"/> Crossing are inspected as per OTHR track standards <input type="checkbox"/> Railway workers have the correct & current competency for tasks they are undertaking	No injuries to persons; No damage to track vehicles; No derailments; 100% compliance with track inspections; All "near misses are investigated within 14 days of occurrence, with all	1	3	4	Track Manager

							investigations having recommendations with 30 days.				
14	Level Crossings	Collisions between pedestrian or car with track machines at crossings	3	4	7	<input type="checkbox"/> All operators have the correct & current competency for the machine they are operating. <input type="checkbox"/> All crossings have correct passive warning signs <input type="checkbox"/> All track machines are maintained in accordance with OTHR Maintenance Policy	No collisions with pedestrians or vehicles no injuries to persons; No damage to track vehicles; No derailments; 100% compliance with track inspections; All "near misses are investigated within 14 days of occurrence, with all investigations having recommendations with 30 days.	2	3	5	Track Manager
15	Track Machine Operation	Incorrect operations of Track Machines	3	4	7	<input type="checkbox"/> All operators have the correct & current competency for the machine they are operating. <input type="checkbox"/> All track machines are maintained in accordance with OTHR Maintenance Policy	No injuries to persons; No damage to track vehicles; No derailments; All "near misses or incidents are investigated within 14 days of occurrence, with all investigations having recommendations with 30 days.	2	2	4	Infrastructure Manager
16	Fire	Asset damage from fire within the rail corridor	3	4	7	<input type="checkbox"/> The whole rail corridor has a high risk of bushfire and it is impracticable to manage the whole line for this risk. The Incident Management Plan IM-004 provides guidelines to the Track Manager on where to focus the resources to manage the risks. <input type="checkbox"/> The emergency and evacuation procedure IM-004 is carried out periodically <input type="checkbox"/> Fire fighting equipment is correctly located and operational <input type="checkbox"/> All operators of all machines are halted until the track is checked and declare safe	No injuries to persons; No damage to track vehicles; No derailments; All damage is completed before normal operations can continue; All fires are promptly reported.	2	2	4	Infrastructure Manager

17	OH&S	Railway workers are unfit and/or unable to undertake their tasks	3	3	6	<input type="checkbox"/> All railway workers comply with OTHR health and fitness guidelines <input type="checkbox"/> All railway workers comply with OTHR Drug and Alcohol Policy P-004 <input type="checkbox"/> All railway workers comply with OTHR Fatigue Management Policy P-003	Workers are fit and able to undertake their tasks safely.	1	2	3	Rail Safety Manager
18	Materials	Incorrect or substandard materials used in railway infrastructure leading to damage of machines and infrastructure as well as injury and death	3	4	7	<input type="checkbox"/> New material will require quality certification from the supplier <input type="checkbox"/> Where second hand material is used to meet heritage requirements, they will be subject to quality inspections to confirm fitness for the intended purpose · Material purchases must comply with OTHR Purchasing Policy P-009	No injuries to persons; No damage to track vehicles; No derailments; 100% compliance with inspections processes.	1	2	3	Infrastructure Manager




19	Interface	Failure to reach interface Management agreements with other rail operators, companies, organisations and individuals	4	4	8	<input type="checkbox"/> The secretary to review and update the OTHR Interface Register <input type="checkbox"/> The secretary and sub-committee to progress the development of interface agreements and provide the Management Committee with regular up-dates <input type="checkbox"/> If development of interface agreements with a risk assessment for each crossing. <input type="checkbox"/> If an interface agreement is not in place the Infrastructure Manager will put in place measures for locations that have a high risk to reduce these risks such as warning signs and procedures to limit the hazards. <input type="checkbox"/> General Public are only permitted in the OTHR Carriage Shed only when there are no repairs, maintenance or movement of any rolling stock. This must be under direct supervision at all times. <input type="checkbox"/> General Public are permitted in and around the Oberon Railway Station only during daylight hours or when under direct supervision for night event. Access to other parts of the Oberon Railway Station precinct is permitted for special events only when no railway operations are occurring.	No collisions with pedestrians or vehicles no injuries to persons; No damage to track vehicles; No derailments; 100% compliance with track inspections; All "near misses are investigated within 14 days of occurrence, with all investigations having recommendations with 30 days.	2	2	4	Secretary
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20	Crane Use	Incorrect lifting and removing rolling stock with a crane	3	4	7	<input type="checkbox"/> Ensure only experienced and licensed contractors are used. Ensure the contractor has visited the site and is aware of risks and completes companies internal risk assessment for each lift <input type="checkbox"/> Exclude all OTHR unnecessary staff and any onlookers within 100m of the lift area. If necessary install temporary fencing. <input type="checkbox"/> Throughout the lifting process the contractor is solely responsible for the lift and OTHR staff are not to be involved	No injuries to persons; No damage to rolling stock; All "near misses are investigated within 14 days of occurrence, with all investigations having recommendations with 30 days.	1	2	3	
21	Rolling Stock	Moving Rolling Stock with heavy machines	3	4	7	<input type="checkbox"/> A detailed risk assessment is prepared prior to the move, including uncontrolled movements, braking procedures, safe working environment for the move excluding onlookers from the site. <input type="checkbox"/> Machines selected with appropriate safe working limit or other relevant parameters after consultation with appropriately qualified experts; <input type="checkbox"/> Competency of the machine operator confirmed <input type="checkbox"/> SWL for slings and D shackles confirmed <input type="checkbox"/> Non authorised persons are excluded from the work zone <input type="checkbox"/> Brakes are checked and serviced before commencement of movement <input type="checkbox"/> Experienced person to walk alongside rolling stock adjacent to brake handle. <input type="checkbox"/> Hauling speed to be at slow walking pace <input type="checkbox"/> Route inspected for hazards <input type="checkbox"/> A more in-depth risk register is developed specific to movement of rolling stock	No injuries to persons; No damage to rolling stock; No derailments; All "near misses or incidents are investigated within 14 days of occurrence, with all investigations having recommendations with 30 days.	2	2	4	Rolling Stock Manager

22	Runaway	Runaway of unattended construction or maintenance track machinery	3	4	7	<input type="checkbox"/> Prepare Safe Work Method Statement <input type="checkbox"/> Operators have the correct & current competency for the machine they are operating.. <input type="checkbox"/> Hand brake is applied and/or wheels chocked when machine unattended.	No injuries to persons; No damage to track vehicles; No derailments; All "near misses or incidents are investigated within 14 days of occurrence, with all investigations	2	2	4	Infrastructure Manager
23	Rolling Stock Unload using tilt trailer	Unqualified and/or uninsured operator. Safely transport wagon from pick-up point to Oberon Unable to line up transport with rail Wagon may roll away when unloaded from transport Unable to unload wagon using the transports inbuilt mechanism	3	5	8	<ul style="list-style-type: none"> • Independent check by OTHR on qualifications, currency and insurance • Use of specialised rail transporter. Operator and assistant will guide transport into correct position. • TM will ensure track is accessible • Apply hand brake. • Have wheel chocks ready. • Clamp rail stop to down gradient side. • Use a sleeper across the line if in doubt. <p>Transport operation crew to perform unloading operation.</p> <p>OTHR to have contingency plan if wagon cannot be unloaded in the normal manner</p>	No injuries to persons; No damage to track vehicles; No derailments; Adopt all controls - additional sleepers could be used between items of other rolling stock if necessary	2	1	3	Infrastructure Manager

Likelihood –Severity Risk Ranking Matrix

Risk assessments are performed with the help of the matrix below that allows incident likelihood and consequences to be quantified. The matrix used by OTHR has been adapted from Australian Standard AS 4360 (2004) Risk Management and an ARTC model.

		 Consequence (Cons) - NO Control/s 				
		Not Significant 1	Minor 2	Moderate 3	Major 4	Extreme 5
5 ALMOST CERTAIN	L IKELIHOOD (L ' h d)	MEDIUM 6	HIGH 7	VERY HIGH 8	VERY HIGH 9	VERY HIGH 10
4 LIKELY		LOW 5	MEDIUM 6	HIGH 7	VERY HIGH 8	VERY HIGH 9
3 POSSIBLE		LOW 4	LOW 5	MEDIUM 6	HIGH 7	VERY HIGH 8
2 UNLIKELY		VERY LOW 3	LOW 4	LOW 5	MEDIUM 6	HIGH 7
1 RARE		VERY LOW 2	VERY LOW 3	LOW 4	LOW 5	MEDIUM 6
RATINGS IN ALL FIELDS Higher Numbers are an <u>undesirable</u> level. <u>Risk Level</u> is the <u>sum</u> of the Likelihood and Probable Effectiveness of Control/s		1 Most Effective	2 Very Effective	3 Moderately	4 Not Very	5 Least Effective

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	<p>Very High</p> <p>High</p> <p>Medium</p> <p>Low</p> <p>Very Low</p>	<p>RISK LEVEL</p> <ul style="list-style-type: none"> - Unacceptable (Intolerable) - Prompt Action Required (Intolerable) - Proceed with Caution - Plan for corrective action - Acceptable 			<p>8 - 10</p> <p>7</p> <p>6</p> <p>4 - 5</p> <p>2 - 3</p>