

Carmichael Rail

Track and Civil Competency Matrix

Construct and Maintain Track / Operate and Maintain Plant

		Around The Track Personnel (Non-Construction/Maintenance - Other)	Around The Track Personnel (Construction/Maintenance)	Rail Labourer	Ballast Unloader/Maintainer	Rail Lubricator	Vegetation Controller	Track Maintainer	Track Certifier	Track Examiner	Track Constructor	Turnout Constructor - Concrete	Turnout Constructor - Timber	Rail welder (Flashbutt Welding)	Rail welder (Aluminothermic)	Rail welder (Electric)	Rail Grinder - Rail only	Rail Grinder - Switches and Crossings	Rail adjuster	Rail Bound Plant Operator (Light)	Rail Bound Plant Operator (Heavy)	Road-Rail Plant Operator	Ultrasonic Tester Track	Ultrasonic Tester Turnouts	Excavator Operator	Loader Operator	Roller Operator	Skid Steer Operator	Dozer Operator	Grader Operator	Truck Diver							
Rail Safety Worker (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y						
Medical Requirements																																						
NTC	Railway Medical Category 1 (Cat 1) Safety Critical (>60 = yearly; 50 - 60 = every 2 years; <50 = every 5 years)																				M	M	M															
NTC	Railway Medical Category 3 (Cat 3) Non Safety Critical (on commencement of duty; >40 = every 5 years)	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M				M	M	M	M	M	M	M	M	M	M	M				
Nat Comp Codes		Competency Requirements (non rail specific)																																				
CPCCOHS1001A	Work Safely in the construction industry (White Card)		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M					
Nat Comp Codes		Licences and machine specific units of competence																																				
AHCCHM307	Prepare and Apply Chemicals						M																															
AHCCHM304	Transport, Handle and Store Chemicals						M																															
TLIW0008	Weld rail using flashbutt welding process													M																								
RIIMPO318F	Conduct civil construction skid steer loader operations																																					
RIIMPO319E	Conduct backhoe/loader operations																										M											
RIIMPO320F	Conduct civil construction excavator operations																									M												
RIIMPO323E	Conduct civil construction dozer operations																																					
RIIMPO324F	Conduct civil construction grader operations																																					
RIIMPO317F	Conduct roller operations																																					
TLIS2012	Install and service rail lubrication equipment						M																															
TLIB1093	Clean equipment and restore worksite						M																															
TLIC2054	Access rail track to run track vehicle within defined worksite																				M	M	M															
Nat Comp Codes		Core and elective courses from TLI2721 Certificate II - Rail Infrastructure																																				
TLIF0020	Safely access the rail corridor (SARC) ^	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M				
TLIB1028	Maintain and use hand tools			M	M	M		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M				
TLID1001	Shift materials safely using manual handling methods			M	M	M		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M				
TLIE1003	Participate in basic workplace communications			M	M	M		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M				
TLIF1001	Follow occupational health and safety procedures			M	M	M		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M				
TLIF2010	Apply fatigue management strategies			M	M	M		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M				
TLIB2085	Apply track fundamentals						M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M			
TLIU2008	Apply environmental procedures to rail infrastructure			M	M	M		M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M			
TLIB2092	Operate minor mechanical equipment							M	M	M	M	M								M	M	M																
TLIB2097	Install and maintain guard rails							M	M		M	M																										
TLIB2121	Maintain rail joints							M	M	M	M	M																										
TLIS2030	Carry out track ballasting							M	M	M	M	M																										
TLIS2031	Install railway sleepers							M	M	M	M	M																										
TLIS2044	Carry out rail installation							M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M			
TLIS2034	Install and repair rail fastening systems							M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M			
Nat Comp Codes		Core and elective courses from TLI27212 Cert II in Rail Infrastructure and TLI37121 Cert III in Rail Infrastructure																																				
TLIB3094	Check and repair track geometry										M		M	M	M																							
TLIB3095	Check and repair points and crossings										M			M	M																							
TLIB3099	Examine track infrastructure										M	M																										
TLIB3100	Visually inspect track infrastructure										M	M																										
TLIB3102	Adjust rail																					M																
TLIC2058	Travel medium or heavy self-propelled on-track equipment <i>NOTE: If travelling outside the possession area, you may need additional competencies - please check with operator.</i>																																					
TLIC0010	Propel and operate light on-track equipment																																					
TLIC3045	Operate road/rail vehicle																																					
TLIS0002	Install and maintain surface track drainage												M	M																								
TLIS3025	Implement ballast unloading												M	M	M																							
TLIS3026	Implement track maintenance and construction																																					
TLIS0003	Install turnouts																																					
TLIS0001	Construct and assemble points and crossings																																					
TLIW0004	Grind rails																																					
TLIW0005	Grind switches and crossings																																					
TLIW0006	Heat and cut materials using oxy-LPG equipment for the rail industry																																					
TLIW3015	Weld rail using aluminothermic welding process																																					
TLIW0036	Apply electric welding process to rail																																					
TLIW0008	Weld rail using flashbutt welding process																																					
TLIS3010	Test rail using ultrasonic equipment																																					
TLIS3011	Test rail using non-destructive testing equipment																																					
Nat Comp Codes		Plant operator competencies - can hold any one or more																																				
TLIW2028	Identify the principles of ballast cleaning operations																																					
TLIW2029	Identify the principles of ballast regulator operations																																					
TLIW2030	Identify the principles of dynamic track stabiliser operations																																					
TLIW2031	Identify the principles of self-propelled rail grinder operations																																					
TLIW2032	Identify the principles of tamping machine operations																																					
Network Competencies		TBD																																				

Notes:	
M* = Must hold the machine specific competency or licence relevant to operations.	
^ = CRN/Bravus SARC and QR SARC acceptable in lieu until 31/12/2022	
The information contained in this matrix is for reference only and could be subject to change from the CRN	
Role	Examples
Around The Track Personnel (Construction/Maintenance)	This role is used for the following types of workers in the rail corridor: Graffiti Removal, General Civil Labouring / Maintenance activities outside the Danger Zone (equivalent to the general civil construction labourer), Apprentices/Trainees, Engineers/Project Managers etc required to access the rail corridor (they must also hold their Engineering/Project Managers RIW role), Surveyors, Tractor Operators, Truck Drivers and Water Cart Operators.
Around The Track Personnel (Non-Construction/Maintenance -Other)	Auditors (inc Safety), Environmental Officers, ie. Arborist or Ecologist, Photographers, Operational roles such as Drivers, Network Operations Supervisors and Planners.
Ballast Unloader	Requires the skills and knowledge to carry out ballast unloading.
Civil Mobile Plant Operator	Mobile plant operators drive and operate heavy machinery used to level, excavate, load and move earth, rock and other material.
Civil Trade Qualified Personnel	A trade qualified person is someone who has completed an apprenticeship and received a certificate of proficiency from the relevant regulatory body.
Earthworker	Supervise the installation and repair rail of earthworks in accordance with safeworking, regulatory and organisational requirements. It includes determining job requirements, undertaking trenching, establishing track formation and minor trackside earthworks, and completing documentation in accordance with specifications.
Rail adjuster	Adjust rail in accordance with safeworking and regulatory requirements and workplace procedures. It includes identifying and determining the requirements for rail adjustment, undertaking rail adjustment, and completing all required documentation.
Rail Bound Plant Operator	Track maintenance machines or items of plant which under normal conditions cannot be removed from the track
Rail Grinder - Rail only	Is a person who grinds rail welds and faults. It includes determining job requirements, grinding weld and/or weld repair, grinding rail to repair surface defects, and completing all required documentation.
Rail Grinder - Switches and Crossings	Is a person who grinds switches and crossings to repair welds and repairing of surface profile of switches and crossings in service.
Rail Labourer	This is a generic labouring role for those working in the Danger Zone on or about the track, ie. Rail Clipping, Rail Laying, Re-Sleepering. Individuals holding this role would normally work under the supervision of specific Track Worker roles like Track Maintainers
Rail Lubricator	Requires the skills and knowledge to install and service rail lubrication equipment, install lubrication equipment, servicing and monitoring, removing lubrication equipment, and completing all required documentation
Rail welder (Aluinothermic)	Rail welder encompasses several roles including: aluminothermic, flashbutt, and Hedkote. This category also includes heat & cut materials using oxy-LPG equipment
Rail welder (Electric)	Rail welder encompasses several roles including: aluminothermic, flashbutt, and Hedkote. This category also includes heat & cut materials using oxy-LPG equipment
Rail welder (Flashbutt Welding)	Rail welder encompasses several roles including: aluminothermic, flashbutt, and Hedkote. This category also includes heat & cut materials using oxy-LPG equipment
Road-Rail Plant Operator	A rolling stock vehicle which can operate under its own power, both on and off rail, and which can transition from one mode of operation to the other. Road rail vehicles may or may not have the ability to travel on a public highway, and may or may not be road registered.
Track Certifier	The Track Construction Certifier must be able to identify and measure both scope of work and quality of track construction work. Requires the knowledge and skill to identify the relevant construction specification and determine whether the track meets that specification and standard. It includes knowledge of the Inspection and Test Plan processes and to understand when hold points and witness points are required. In addition the certifier needs to know the maintenance standards for the track so that any outstanding work can be defined with the appropriate train operating restriction until all remedial work is completed.
Track Constructor	Requires the skills and knowledge to implement construction activities including planning work, implementing construction, dealing with maintenance and construction problems.
Track Examiner	Examine track and right of way infrastructure including preparing for examination, examining track and right of way, analysing examination results, and reporting findings.
Track Maintainer	Implement track maintenance, conduct mandatory systematic inspection, examination, condition monitoring and functional checks on the rail infrastructure and take appropriate action to ensure rail infrastructure is in a safe operational condition, including recording and reporting of defective infrastructure to maintain a valid defect recording system.
Turnout Constructor - Concrete	Requires the skills and knowledge to implement turnout construction activities including planning work, implementing construction, dealing with maintenance and construction problems.
Turnout Constructor - Timber	Requires the skills and knowledge to implement turnout construction activities including planning work, implementing construction, dealing with maintenance and construction problems.
Ultrasonic Tester Track	Involves test plain rail and field welds using ultrasonic equipment. It includes determining test requirements, conducting testing using hand directed equipment, conducting visual examination and measurement of welds, identifying and classifying defects, and completing all required documentation.
Ultrasonic Tester Turnouts	Includes above role requirements as well as: test switches, crossings and other special components in turnouts using ultrasonic and other nondestructive testing equipment. It
Vegetation Controller	Controlling vegetation

Roles and units of competency with currency requirements		Verification of Competence
Rail Bound Plant Operator		
TLIC2058	Travel medium or heavy self-propelled on-track equipment	2 Years
Rail Grinder		
TLIW0004	Grind rails	2 Years
Rail Welder (and other roles that include the following units)		
TLIW0006	Heat and cut materials using oxy-LPG equipment for the rail industry	2 Years
TLIW3015	Weld rail using aluminothermic welding process	2 Years
TLIW0036	Apply electric welding process to rail	2 Years
TLIW0008	Weld rail using flashbutt welding process	2 Years
Track Certifier and Track Examiner (and other roles that include the following units)		
TLIB3094	Check and repair track geometry	2 Years
TLIB3099	Examine track infrastructure	2 Years
TLIB3100	Visually inspect track infrastructure	2 Years
TLIB3102	Adjust rail	2 Years
Vegetation Controller		
		5 Years
Ultrasonic Tester Turnouts		
TLIS3010	Test rail using ultrasonic equipment	5 Years
TLIS3011	Test rail using non-destructive testing equipment	2 Years