

**SKILLS FRAMEWORK FOR PUBLIC TRANSPORT  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

<b>TSC Category</b>	Rail Systems Maintenance					
<b>TSC</b>	Rail Track Inspection					
<b>TSC Description</b>	Plan, coordinate and perform inspection of rail tracks through on-site patrols					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
	<b>PTP-RSM-1024-1.1</b>	<b>PTP-RSM-2024-1.1</b>	<b>PTP-RSM-3024-1.1</b>	<b>PTP-RSM-4024-1.1</b>		
	Patrol rail tracks to perform first-line inspection and detect track faults	Supervise first-line inspection of rail tracks and apply knowledge of track faults in recommending fault recovery using diagnostic tools and equipment	Coordinate inspection of rail tracks and deploy emergency response team in response to maintenance and repair requirement	Develop rail track inspection schedules, work instructions and safety guidelines, and recommend areas of improvement to inspection activities		
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Elements of the permanent way systems</li> <li>• Track and track-side features</li> <li>• Track specifications, tolerance limits, and track geometry</li> <li>• Types of track defects and faults</li> <li>• Severity levels of track defects and faults</li> <li>• Track inspection work instruction</li> <li>• Methods and procedures to clean tracks</li> <li>• Procedures and systems for documentation and reporting</li> <li>• Organisational procedures for track access and procession</li> <li>• Safety guidelines for track access and track inspection</li> <li>• Types and uses of personal protective equipment (PPE) and protective measures</li> </ul>	<ul style="list-style-type: none"> <li>• Track inspection work instruction</li> <li>• Track specifications, tolerance limits, and track geometry</li> <li>• Types of track defects and faults</li> <li>• Methods to performing first-line recovery on track defects and faults</li> <li>• Types of tools and equipment to be used in performing fault recovery</li> <li>• Operating principles and functions of diagnostic tools and equipment for track faults recovery</li> <li>• Procedures for line-clear before the start of revenue service</li> <li>• Organisational procedures for track access and procession</li> </ul>	<ul style="list-style-type: none"> <li>• Procedures to execute follow-up actions for maintenance</li> <li>• Emergency response teams and procedures to activate them</li> <li>• Types of tools and equipment to be used in performing track fault recovery</li> <li>• Operating principles and functions of diagnostic tools and equipment for track faults recovery</li> </ul>	<ul style="list-style-type: none"> <li>• Operational and environmental factors that affect the frequency and quality of track inspections</li> <li>• Track inspection scheduling methodologies and tools</li> <li>• Factors determining immediate track faults recovery</li> <li>• Technological changes that enhance rail track inspection</li> <li>• Rapid Transit Systems (RTS) Act</li> <li>• Relevant sections of the Codes of Practice</li> </ul>		
<b>Abilities</b>	<ul style="list-style-type: none"> <li>• Carry out track access and possession procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Supervise track access and possession procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate track inspection activities in accordance to schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Develop schedule for track inspections</li> </ul>		

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	<ul style="list-style-type: none"> <li>• Follow work instructions and carry out for track inspection</li> <li>• Identify defects and faults from track inspections</li> <li>• Indicate the locations of defects and faults identified</li> <li>• Compare existing defects and faults to identify recurrence</li> <li>• Report defects and faults to internal stakeholders</li> <li>• Carry out cleaning of tracks</li> <li>• Follow and enforce safety guidelines during track inspection</li> <li>• Document routine inspection activities</li> <li>• Undertake personal protection measures</li> </ul>	<ul style="list-style-type: none"> <li>• Supervise track inspection in accordance to work instructions</li> <li>• Operate diagnostic tools and equipment to perform track fault inspection</li> <li>• Apply knowledge of track defects and first-line recovery methods to recommend track fault recovery</li> <li>• Perform user maintenance of tools and equipment to ensure its operational readiness</li> <li>• Improve documentation of inspection activities</li> <li>• Apply knowledge of line-clear procedures to perform line-clear</li> </ul>	<ul style="list-style-type: none"> <li>• Determine actual and potential emergency situations and implement precautionary measures</li> <li>• Deploy emergency response team to address issues from track inspection for maintenance and repairs</li> <li>• Monitor the implementation of safety guidelines for track inspection</li> <li>• Recommend improvements to track inspection instructions and procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitate rectification of track faults when immediate action is required</li> <li>• Adapt technological changes into rail track inspection</li> <li>• Develop safety guidelines in accordance with safety requirement and Codes of Practice for track access and inspection</li> <li>• Develop work instructions on track inspection</li> <li>• Review existing track inspection plans to propose areas of improvement in the efficiency and effectiveness of track inspection</li> </ul>		
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