

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

TSC Category	Rail Systems Maintenance					
TSC	Video Surveillance System Maintenance					
TSC Description	Implement preventive and corrective maintenance activities of video surveillance system					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	PTP-RSM-1045-1.1	PTP-RSM-2045-1.1	PTP-RSM-3045-1.1	PTP-RSM-4045-1.1		
	Carry out scheduled maintenance work on Video Surveillance System (VSS)	Conduct corrective maintenance on Video Surveillance System (VSS)	Troubleshoot faulty Video Surveillance System (VSS) to locate faults and recommend rectification methods	Diagnose root causes of Video Surveillance System (VSS) failure and review maintenance plans to prevent fault recurrence		
Knowledge	<ul style="list-style-type: none"> Operating principles and functions of VSS Components of VSS and Train Video Surveillance System (TVSS) that includes: <ul style="list-style-type: none"> Camera Recorder Matrix Transmission system Video surveillance system architecture and components Operating instructions for video surveillance application software Types of tools and equipment for carrying out preventive maintenance on video surveillance system Procedures for servicing VSS in accordance to organisational maintenance procedures, Work Instructions (WI) and/or Original Equipment Manufacturer (OEM) technical manuals Safety guidelines on use of tools and equipment 	<ul style="list-style-type: none"> Operating principles and functions of VSS Components of VSS and Train Video Surveillance System (TVSS) that includes: <ul style="list-style-type: none"> Camera Recorder Matrix Transmission system VSS architecture and components Operating procedures for video surveillance application software Types of tools and equipment for carrying out corrective maintenance on video surveillance system Procedures to dismantle, repair, replace, and re-assemble VSS Procedures to normalise faults on VSS Safety guidelines on use of tools and equipment for corrective maintenance on VSS Organisational maintenance 	<ul style="list-style-type: none"> Operating instructions for VSS Procedure for conducting system performance checks Common fault symptoms in VSS and components Methods of locating faults on VSS and components Procedures to normalise and rectify faults on VSS Types of troubleshooting techniques, equipment and tools Safety guidelines for usage of tools and equipment to execute troubleshooting on VSS 	<ul style="list-style-type: none"> Factors affecting VSS equipment and system performance Failure investigation and prevention methods Methods and tools for diagnostic analysis Video images and coverage requirements Organisational maintenance procedures, Work Instructions (WI) and Original Equipment Manufacturer (OEM) technical recommendation Types and methods of system performance checks on VSS Functional relationships between VSS, other communication systems and the overall rail systems 		

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	<p>for preventive maintenance on VSS</p> <ul style="list-style-type: none"> Organisational maintenance documentation and fault reporting procedures 	<p>documentation and fault reporting procedures</p>				
Abilities	<ul style="list-style-type: none"> Perform preparation work to conduct maintenance on VSS Check serviceability of VSS and components Carry out preventive maintenance of VSS according to organisation procedures, WI and/or original OEM technical manuals Adhere to safety guidelines and operating instructions for tools and equipment during maintenance activities Record VSS maintenance activities and report occurrences of faults identified 	<ul style="list-style-type: none"> Interpret work orders and prepare for corrective maintenance Normalise software faults on VSS Dismantle faulty components in VSS for corrective maintenance Carry out rectification, repair and/ or replacement of faulty components Reassemble and reinstate VSS Perform system functionality tests on VSS Apply operating and safety measures in operating tools and equipment during maintenance work Record and collate documentation on VSS maintenance activities 	<ul style="list-style-type: none"> Use troubleshooting tools, equipment and methods to locate and analyse causes of VSS and components faults Apply fault identification procedures to determine causes of faults in VSS Test and check system performance and serviceability Recommend corrective actions for identified faults on VSS Perform system software reconfiguration and/or upgrades Implement procedures on safe usage of tools and equipment during maintenance work Analyse maintenance work documented for VSS to identify possible workflow improvements so as to prevent fault recurrence 	<ul style="list-style-type: none"> Establish structured failure investigation and specify functional testing requirements Perform fault tree analyses to diagnose root cause failure on VSS Review organisational VSS maintenance procedures and WI Propose new and/or enhanced maintenance procedures and/or WI in reference to OEM technical recommendations Monitor overall maintenance progress of VSS to determine system performance reliability and effectiveness Develop solutions by analysing diagnostic data to prevent faults and failures recurrence Develop troubleshooting, rectification and fault analysis methods and techniques Develop test procedures for system performance checks Coordinate VSS maintenance with other rail systems maintenance needs 		