

TSC Category	Discipline Engineering Specialisation					
TSC	Electrical Engineering Management					
TSC Description	Manage design, technical specification, selection, modification and troubleshooting of electrical engineering equipment, components and systems to provide electrical engineering discipline support to construction, operations, maintenance and project teams					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			EGS-EPM-3006-1.1	EGS-EPM-4006-1.1	EGS-EPM-5006-1.1	
			Interpret designs, technical specifications, modification designs, constructability methods, and maintenance procedures to provide electrical engineering discipline support to construction, operations, maintenance and project teams	Enable the development and implementation of designs, technical specifications, modification designs, constructability methods, and maintenance procedures to manage electrical engineering discipline support to construction, operations, maintenance and project teams	Evaluate designs, technical specifications, modification designs, constructability methods, and maintenance procedures to drive high standards of electrical engineering discipline support to construction, operations, maintenance and project teams	
Knowledge			<ul style="list-style-type: none"> • Electrical safety principles and practices • Hazardous areas and explosion proof (Ex) equipment principles specific codes e.g. IEC 60079-10, API RP500/505 etc. • Electrical system design and modification methods • Electrical protection and control methods • Electrical standards and codes of practice • Earthing and bonding principles and techniques • Electrical equipment selection methods • Electrical drawing standards • Electrical construction and commissioning principles • Electrical maintenance principles 	<ul style="list-style-type: none"> • Electrical safety standards, local and international • Electrical system studies methodologies • Electrical construction and commissioning best practice, local and international standards • Electrical maintenance best practices, local and international standards • Electrical maintenance strategies implementation • Methods of interpreting condition-monitoring system data 	<ul style="list-style-type: none"> • Electrical systems safety best practice, local and international standards • Electrical systems design and modification practices • Electrical standards; local and international regulations • Electrical maintenance strategies • Engineering, Procurement and Construction (EPC) project management 	

<p>Abilities</p>			<ul style="list-style-type: none"> • Contribute to the development, review and application of the organisation's electrical safe working procedures • Develop area classification layouts and sections applying specific codes • Create and/or modify Low Voltage (LV) and High Voltage (HV) systems design, sizing and fault rating of switchgear, cable sizes etc. • Create and/or modify design of other electrical systems, earthing/grounding, heat-tracing, lighting, air conditioning etc. considering load, contingency and future needs • Design/or modify electrical protection and control systems including selection of settings and parameters • Support the construction, installation and commissioning of electrical equipment and systems • Define, review or verify bonding and earth/grounding measures for control of static electricity 	<ul style="list-style-type: none"> • Manage the development and implementation of the organisation's electrical safe working procedures • Manage the development and implementation of area classification layouts and sections • Review results of explosion proof (Ex)/Hazardous location inspection analysis and recommend any change in strategy • Manage the modification and/or design of main power distribution design, description and philosophy, power generation and/or grid supply design, description and philosophy • Review the design/or modification to electrical protection and control systems including selection of settings and parameters • Review, validate or re-validate temporary electrical installations 	<ul style="list-style-type: none"> • Set the organisation's electrical safety standards • Review and endorse organisation's electrical safe working procedures • Review and endorse area classification layouts and sections for the facility • Define the strategy for electrical equipment used in hazardous areas explosion proof (Ex) competence levels and evidence requirements for designers, installers, maintainers and repairers • Review and endorse modification and/or design of main electrical systems, power distribution and power generation systems • Review and endorse electrical system studies required during various project phases to verify system design and equipment selection • Review and approve electrical systems maintenance and construction support through plans and drawings, specifications and design criteria • Benchmark electrical equipment integrity management systems against organisation, statutory or regulatory requirements 	
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