

**POWER ENGINEERING COMPETENCY FRAMEWORK FOR POWER ENGINEERING PROFESSIONALS IN PUBLIC SERVICE
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Health and Safety Management					
TSC Title	Workplace Safety and Health Framework Implementation					
TSC Description	Implement Workplace Safety and Health (WSH) and Safe System of Work (SSoW) frameworks and best practices to ensure a safe and reliable workplace					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		<Insert TSC Code>	<Insert TSC Code>	<Insert TSC Code>	<Insert TSC Code>	
		Follow Workplace Safety and Health (WSH) policies, procedures and Safe System of Work (SSoW) practices in day-to-day activities	Identify relevant Workplace Safety and Health (WSH) policies, procedures and Safe System of Work (SSoW) practices	Implement Workplace Safety and Health (WSH) and Safe System of Work (SSoW) frameworks and systems	Review compliance with Workplace Safety and Health (WSH) and Safe System of Work (SSoW) frameworks and systems	
Knowledge		<ul style="list-style-type: none"> WSH and SSoW policies, procedures and practices Principles of hazard identification and activity-based risk assessment WSH in the workplace, signages, muster points, safety meetings WSH roles and responsibilities WSH document filling, storage and access Types and usage of Personal Protective Equipment (PPE) Safety signs and symbols Methods of planning, preparing, executing and maintaining a safe work environment WSH policies and procedures that are applicable to contractors Permit-to-Work systems, documentation, formats and layouts Principles of isolations and de-isolations 	<ul style="list-style-type: none"> WSH Act, subsidiary legislations, regulations and Codes of Practice SSoW policies, procedures practices, and audit processes Roles and responsibilities of stakeholders in safety and health inspections Risk management processes, workflows and processes of activity-based risk assessments Processes, methods and techniques to identify hazards, evaluate risks and control risks Principles of Simultaneous Operations (SIMOPS) and possible impacts on risk assessments Fire and Explosion Prevention Safety Management System and Occupational Safety and 	<ul style="list-style-type: none"> WSH Act, subsidiary regulations, policies, procedures and practices WSH roles and responsibilities for individual and team WSH related industry Codes of Practice and Singapore Standards WSH rules and regulations Emergency evacuation procedures Principles and procedures of Permit-to-Work systems Principles and steps for conducting activity-based risk assessments Principles and steps for conducting Job Safety Analysis (JSA), Safe Operating Procedures and safe isolation procedures Process equipment and systems operating 	<ul style="list-style-type: none"> WSH Act, subsidiary regulations, legal and other requirements WSH related industry Codes of Practice and Singapore Standards Methods to review, measure and control WSH workplace activities WSH key performance indicators (KPIs) Techniques and methods to review WSH legal compliance Methods of WSH audits and management review Best industry practices on Permit-to-Work systems, risk assessments, Job Safety Analysis (JSA), Safe Operating Procedures, safe isolation procedures, isolation and de-isolation procedures and lockout-tagout (LOTO) Risk management techniques 	

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			<p>Health Management System (OSHMS)</p> <ul style="list-style-type: none"> • Permit-to-Work systems and processes • Types and objectives of safety and health inspections 	<ul style="list-style-type: none"> • Workflow and documentation control of the SSoW system 	<ul style="list-style-type: none"> • SSoW workflows, roles and responsibilities, permit authorities and area authorities 	
Abilities		<ul style="list-style-type: none"> • Comply with WSH system in the workplace • Apply SSoW processes and procedures • Maintain good housekeeping standards • Ensure correct selection of Personal Protective Equipment (PPE) • Ensure contractors comply with WSH policies and procedures • Contribute WSH improvement ideas • Prepare work permits and work area • Conduct activity-based risk assessments • Implement risk control measures 	<ul style="list-style-type: none"> • Comply with WSH legislations, guidelines and Codes of Practice and provide input for risk assessments • Supervise SSoW processes and procedures • Identify hazards and control measures • Comply with safety and health management systems • Implement a Permit-to-Work system • Conduct safety and health inspections • Conduct incident investigations • Coordinate work permit applications and issue work permits • Coordinate activity-based risk assessments and determine risk levels • Ensure effective implementation of SSoW during the execution of work activities 	<ul style="list-style-type: none"> • Develop, establish and implement WSH and SSoW frameworks, standards and practices, including Permit-to-Work systems, risk assessments, job safety analysis, safe operating procedures, safe isolation procedures and LOTO • Ensure compliance with WSH policies and procedures within team and areas of accountabilities • Ensure WSH roles and responsibilities are defined, rolled out, understood and monitored • Ensure compliance with workplace procedures for risk control measures • Communicate WSH procedures and risk control measures to staff and contractors and provide training if required • Ensure signages are in line with framework requirements • Supervise programmes to ensure emergency equipment is identified, available and maintained • Recommend improvements to WSH 	<ul style="list-style-type: none"> • Manage and direct WSH activities • Set and monitor WSH targets and KPIs • Manage and review WSH performance • Guide SSoW development and audit WSH system in accordance with legal and system requirements • Recommend and review continuous improvement of WSH policies, SSoW frameworks and procedures in accordance with Singapore Standards, Codes of Practice and industry best practices • Communicate WSH performance across the organisation 	

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				and SSoW frameworks, practices and procedures to enhance the organisation's ability to comply with regulatory requirements		
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