

SKILLS FRAMEWORK FOR ENGINEERING SERVICES SKILLS MAP – SENIOR ENGINEER/ASSISTANT MANAGER (COMMISSIONING)				
Sector	Engineering Services			
Track	Engineering Construction and Commissioning			
Occupation	Engineering Professional			
Job Role	Senior Engineer/Assistant Manager (Commissioning)			
Job Role Description	<p>The Senior Engineer/Assistant Manager (Commissioning) is responsible for driving operational excellence and effectiveness in commissioning activities. He/She verifies the accuracy of owner's project requirements, reviews commissioning plans, and ensures adherence to project scope, schedule and budget. He reviews commissioning issues from inspections, tests and site-visits, and ensures implementation of corrective and preventive measures. He coordinates with engineering procurement, design, and engineering construction teams to ensure compliance, safety and risk management in accordance with external regulations and organisational standards. He manages a team of engineers and ensures efficient business operations.</p> <p>He possesses strong analytical and problem-solving skills. He possesses good leadership, stakeholder management and project management skills. He works on-site and is expected to travel occasionally to project locations.</p>			
Critical Work Functions and Key Tasks / Performance Expectations	Critical Work Functions		Key Tasks	Performance Expectations* (For legislated / regulated occupations)
			Verify accuracy, completeness and clarity of owner's project requirements (OPR) and success criteria for the project	
	Review the commissioning scope, schedule and budget			
	Review commissioning plans, communication protocols and resourcing plans			
	Review commissioning requirements against project specifications and regulatory requirements			
	Review functional testing procedures and test data forms including test prerequisites and acceptance criteria			
	Conduct commissioning planning		Lead review of engineering design submittals to ensure compliance with the OPR	
Lead commissioning meetings and site visits to pre-empt systemic problems in engineering construction				
Commission equipment, systems and assemblies				

		Review construction checklists to validate handover from construction	
		Review functional and technical test results for equipment, systems and assemblies to ensure that they meet predefined acceptance criteria for quality and reliability	
		Ensure resolutions of issues identified from surveys, inspections and tests conducted by vendors and external stakeholders	
		Provide constructive inputs for resolution of commissioning issues and system deficiencies	
	Conduct handover and initial start-up	Verify quality of commissioning report documenting all commissioning activities and findings	
		Recommend systemic solutions to be implemented prior to start-up based on pre start-up safety review (PSSR) findings	
		Lead hand-over of operational equipment, systems and assemblies to approved personnel	
		Lead orientation, demonstration and training for owners and operations and maintenance personnel	
		Ensure ongoing commissioning support during initial start-up and ramp-up period	
	Manage health, safety and environment	Drive departmental plans to ensure compliance with the organisational Workplace Safety and Health (WSH) policies and Environmental Management Systems (EMS)	
		Review contractors' and vendors' compliance with the organisational WSH and EMS standards and practices	
		Ensure closure of WSH and EMS accident and incident investigations and their notification to relevant authorities	
		Ensure implementation of sustainable engineering procedures and guidelines	
	Manage people and organisational function	Acquire and allocate resources to support business operations	
		Drive team performance to achieve department goals	

		Identify recruitment needs and areas for technical and business management training and development		
		Analyse financial implications of business strategies to daily operations		
		Develop risk management plans and risk controls in alignment with organisation's risk management framework		
		Analyse viability of proposed continuous improvement initiatives and drive change management		
			*Performance Expectations are non-exhaustive and subject to prevailing regulations	
Skills & Competencies	Technical Skills & Competencies		Generic Skills & Competencies (Top 5)	
	Budgeting	Level 3	Communication	Advanced
	Building Information Modelling Application	Level 4	Problem Solving	Intermediate
	Business Performance Management	Level 3	Decision Making	Advanced
	Business Presentation Delivery	Level 4	Teamwork	Advanced
	Change Management	Level 4	Service Orientation	Intermediate
	Civil and Structural Engineering Management	Level 4		
	Commissioning and Start-Up Management	Level 4		
	Continuous Improvement Management	Level 4		
	Cost Management	Level 4		
	Data and Statistical Analytics	Level 3		
	Design for Safety	Level 3		
	Electrical Engineering Management	Level 3		
	Engineering Drawing Interpretation and Management	Level 4		
	Engineering Safety Standards Interpretation	Level 4		
Environmental Management System Framework Development and Implementation	Level 4			

	Equipment and Systems Testing	Level 4	
	Geotechnical Engineering Management	Level 4	
	Hazards and Risk Identification and Management	Level 4	
	Instrumentation and Control Design Engineering Management	Level 3	
	Learning and Development	Level 3	
	Manpower Planning	Level 4	
	Mechanical Engineering Management	Level 3	
	Organisational Resource Management	Level 4	
	Organisational Risk Management	Level 3	
	Programme Management	Level 4	
	Project Risk Management	Level 4	
	Quality System Management	Level 3	
	Staff Management	Level 4	
	Stakeholder Management	Level 4	
	Structural Testing	Level 3	
	Sustainable Engineering	Level 3	
	Technical Inspection	Level 3	
	Technical Writing	Level 3	
	Technology Application	Level 3	
	Third Party Management	Level 4	
	Workplace Safety and Health Culture Development	Level 4	
	Workplace Safety and Health Framework Development and Implementation	Level 4	
Programme Listing	For a list of Training Programmes available for the Engineering Services sector, please visit: www.skillsfuture.sg/skills-framework/engineeringservices		

The information contained in this document serves as a guide.