

**SKILLS FRAMEWORK FOR ENERGY AND CHEMICALS
SKILLS MAP - SENIOR QA ENGINEER**

Sector	Energy and Chemicals			
Track	Quality Assurance and Quality Control (QA&QC)			
Occupation	Technical Professional			
Job Role	Senior QA Engineer			
Job Role Description	The Senior QA Engineer manages Quality Assurance and Quality Control (QA&QC) by reviewing the organisation's Quality Management System (QMS) and making recommendations for improvement in quality system conformance, documentation control and quality data collection methodologies. He/She supports the development of strategic quality improvement programmes for the organisation.			
	The Senior QA Engineer leads investigations into inconsistent quality practices and non-conformance issues, and manages remedial actions for product failure with relevant departments. He manages the continuous improvement of the organisation's QMS by researching and proposing the adoption of industry best practices in QA&QC. He provides advice on quality matters for new product and application development to the technical service and Research and Development (R&D) teams. In addition, he coaches and mentors the junior staff in the QA&QC team.			
	The Senior QA Engineer leads a team of QA engineers. He is systematic, meticulous and organised, and possesses excellent analytical, problem-solving, interpersonal and communication skills.			
Critical Work Functions and Key Tasks	Critical Work Functions		Key Tasks	
	Administer Workplace Safety and Health (WSH) and Environmental Management Systems (EMS)	Comply with WSH and EMS systems		
	Manage Quality Assurance and Quality Control (QA&QC)	Manage QA&QC-related training and communication sessions		
		Review data collection methodologies for quality assurance and product improvement		
		Review documentation control and management and recommend organisational level improvements		
		Review Quality Management Systems (QMS)		
		Supervise quality system conformance audits and recommend organisational level improvements		
		Support the development of strategic quality improvement programmes		
	Manage non-conformance	Lead investigations and review compiled information regarding inconsistent quality processes and non-conformance issues		
		Review product failure data and performance trends, and manage remedial actions with respective departments		
		Review root cause analysis procedures and methods		
	Manage continuous improvement	Advise technical service and Research and Development (R&D) teams on quality matters for new product development and applications		
		Research and propose adoption of industry best practices for QA&QC		
		Review recommendations for quality and productivity improvements and cost reduction opportunities		
Validate quality assurance improvement proposals and applications of new technologies and processes				
Administer staff and organisational development	Adopt technologies to support virtual collaboration in remote locations			
	Coach and mentor staff			
	Manage team performance to achieve organisational goals			
	Validate continuous improvement initiatives and activities			
Skills & Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
	Audit and Review Management	Level 5	Communication	Advanced
	Change Management	Level 4	Sense Making	Advanced
	Continuing Professional Development Management	Level 4	Problem Solving	Advanced
	Continuous Improvement Management	Level 4	Interpersonal Skills	Advanced
	Data and Statistical Analytics	Level 4	Decision Making	Intermediate
	Environmental Management System Framework Development and Implementation	Level 3		
	Laboratory Data Reporting and Analysis Management	Level 5		
	Materials Qualification	Level 4		
	Non-Conformance Management	Level 4		
	Project Management	Level 5		
	Quality Assurance Management	Level 5		
	Quality Control Management	Level 4		
	Technical Presentation	Level 5		
	Technical Report Writing	Level 4		
Training, Coaching and Assessment Management	Level 3			

Skills & Competencies	Workplace Safety and Health Framework Development and Implementation	Level 3	
	Workplace Safety and Health Hazard Identification and Risk Control Management	Level 3	
Programme Listing	For a list of Training Programmes available for the Energy and Chemicals sector, please visit: www.skillsfuture.sg/skills-framework/energyandchemicals		

The information contained in this document serves as a guide.