SKILLS FRAMEWORK FOR ENERGY AND CHEMICALS
SKILLS MAP - QA ENGINEER

Sector	**Energy and Chemicals**
Track	**Quality Assurance and Quality Control (QA&QC)**
Occupation	**Technical Professional**
Job Role	**QA Engineer**
Job Role Description	The QA Engineer maintains and implements the Quality Management System (QMS) for the organisation. He/She manages Quality Assurance and Quality Control (QA&QC) by conducting audits for quality system conformance, and by liaising across departments to maintain good documentation control and management. He conducts QA&QC-related training and communication sessions for staff and contributes to the development of strategic quality improvement programmes for the organisation. The QA Engineer conducts investigations into inconsistent quality processes and non-conformance and recommends preventive actions to eliminate recurrences of such issues. He monitors product failure data and performance trends, and initiates remedial actions with relevant departments, where necessary. In addition, he actively identifies opportunities and prepares recommendations for continuous improvement in quality, productivity and cost efficiency. The QA Engineer is meticulous, thinks systematically and is able to work independently. He possesses good organisation, 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)	Conduct QA&QC-related training and communication sessions
	Conduct quality system conformance audits and initiate corrective actions
	Implement Quality Management Systems (QMS)
	Liaise across departments to maintain good documentation control and management
	Maintain and support data collection methodologies for quality assurance and product and/or process improvements
	Support the development of strategic quality improvement programmes
Manage non-conformance	Conduct investigations and compile information regarding inconsistent quality processes and non-conformance issues
	Conduct root cause analyses and recommend preventive actions
	Monitor product failure data, performance trends and initiate remedial actions with respective departments
Manage continuous improvement	Identify quality assurance improvement opportunities and propose applications of new technologies and processes
	Prepare recommendations for quality and productivity improvements and cost reduction opportunities
Administer staff and organisational development	Adopt technologies to support virtual collaboration in remote locations
	Implement continuous improvement initiatives and activities

Skills & Competencies

Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
Audit and Review Management	Level 4	Sense Making	Advanced
Change Management	Level 4	Communication	Advanced
Continuing Professional Development Management	Level 4	Leadership	Intermediate
Continuous Improvement Management	Level 3	Problem Solving	Intermediate
Data and Statistical Analytics	Level 3	Decision Making	Intermediate
Environmental Management System Framework Development and Implementation	Level 3		
Laboratory Data Reporting and Analysis Management	Level 4		
Materials Qualification	Level 4		
Non-Conformance Management	Level 3		
Project Management	Level 4		
Quality Assurance Management	Level 4		
Quality Control Management	Level 4		
Technical Presentation	Level 4		
Technical Report Writing	Level 4		
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.

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