

TSC Category	Quality Assurance and Quality Control Management					
TSC	Quality Control Management					
TSC Description	Establish and implement quality control (QC) systems and procedures to ensure the quality of products meet desired levels of standards and compliance at all stages					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	ECM-QAM-1006-1.1	ECM-QAM-2006-1.1	ECM-QAM-3006-1.1	ECM-QAM-4006-1.1	ECM-QAM-5006-1.1	
	Identify quality control (QC) procedures to assist in quality checks and testing for products	Apply appropriate quality control (QC) procedures to perform quality checks and testing to ensure product quality meets desired specifications	Interpret quality control (QC) system and procedures to coordinate QC related activities and to ensure the consistency of product quality	Develop quality control (QC) system and procedures to test and validate product quality	Devise the organisation's quality control (QC) policy and objectives to ensure the quality of products meet desired levels of standards and compliance at all stages	
Knowledge	<ul style="list-style-type: none"> QC testing processes and procedures Plant operating procedures Basic principles of process quality control Sampling methods and techniques Product handling procedures Procedures for managing non-conformance 	<ul style="list-style-type: none"> Procedures for performing QC Types of equipment involved in QC testing activities Basic product testing and inspection methods Sampling methods and techniques Product handling procedures Non-conformance escalation processes and procedures 	<ul style="list-style-type: none"> QC procedures and standards Principles of product testing and checks Product specifications and quality standards Types of equipment involved in QC testing activities Working principles and functions of testing and analytical equipment Product sampling techniques Product handling procedures Process non-conformance management procedures 	<ul style="list-style-type: none"> Principles and requirements of Quality Management System (QMS) Types of quality assurance and quality control (QA&QC) checks Critical process parameters Product specifications Qualification procedures Statistical data analysis Quality data collection and analysis methods Continuous improvement methods and techniques Quality system auditing techniques 	<ul style="list-style-type: none"> International quality management standards Legislation and industry Codes of Practice (COP) for quality Types of Quality Management Systems (QMS) and system requirements Quality assurance and quality control (QA&QC) strategies Product qualification methods Advanced statistical analysis techniques Quality monitoring methods Quality system audit management techniques 	

**SKILLS FRAMEWORK FOR ENERGY AND CHEMICALS
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

Abilities	<ul style="list-style-type: none"> • Assist in collecting samples for testing • Identify the steps involved in product testing and process quality checks • Identify equipment used in product quality tests • Identify basic tests for non-conformance criteria • Perform process quality control checks • Report non-conformances 	<ul style="list-style-type: none"> • Identify the steps involved in QC operations • Identify hardware and equipment for different types of inspection and testing • Collect samples for testing • Conduct testing and checks • Carry out in-process checks • Take actions for non-conformances 	<ul style="list-style-type: none"> • Coordinate and perform product sampling according to testing schedules • Coordinate and perform a range of production testing and checks, according to organisational standards, policies and procedures • Confirm product compliance with specifications and standards • Take action upon non-conforming processes or test results 	<ul style="list-style-type: none"> • Identify functions of QA&QC • Supervise production QA&QC functions • Develop product quality testing and quality check procedures • Analyse data covering critical process parameters • Supervise follow-up actions for correcting non-conformances • Audit the QMS • Liaise with internal and external parties on quality matters and standards • Communicate quality information across the organisation • Assure customer end products meet organisational and customer specifications 	<ul style="list-style-type: none"> • Formulate QA&QC strategies • Review and identify functions of testing and inspection required • Determine appropriate tests to manage product quality • Analyse testing methods and routines required to assure quality • Review and analyse results and reports from critical process parameters • Manage required QA&QC follow-up actions • Review audits of the QMS 	
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