

TSC Category	Quality Assurance and Quality Control Management					
TSC	Materials Qualification					
TSC Description	Manage the quality of materials to ensure material specifications conform to product requirements					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		ECM-QAM-2003-1.1	ECM-QAM-3003-1.1	ECM-QAM-4003-1.1	ECM-QAM-5003-1.1	
		Apply procedures to monitor the conformance of materials to specifications and product requirements	Interpret and analyse acceptance test results to ensure materials meet specifications and conform to product requirements	Review performance of materials to ensure reliable materials qualification for product requirements	Formulate test criteria and guidelines for materials qualification to validate new materials enhancement of the production process	
Knowledge		<ul style="list-style-type: none"> Procedures for conducting materials qualification Types of test methods and equipment involved in materials qualification Basic material testing and inspection methods Material handling procedures 	<ul style="list-style-type: none"> Materials specifications Test methods application Quality control procedures and practices Change control procedures and applications Fundamentals of materials supply chain management 	<ul style="list-style-type: none"> Materials standards and specifications Testing methods and procedures Materials acceptance procedures Quality management procedures Product and process applications Laboratory operations Test data analysis Quality control procedures and standards Change management processes Principles of materials supply chain management Test criteria guidelines 	<ul style="list-style-type: none"> Materials analysis and testing standards Materials interface reactions and methodologies for analytical verification Analytical methods and techniques Product quality standards specification definitions Customised analysis strategies for effective material selection Problem-solving techniques Risk management methods Change management processes Materials supply chain management Audit management methods 	
Abilities		<ul style="list-style-type: none"> Identify acceptance criteria for materials and products Perform acceptance testing of materials and products 	<ul style="list-style-type: none"> Interpret acceptance criteria for materials and products Coordinate acceptance testing of materials and products 	<ul style="list-style-type: none"> Identify test criteria guidelines Review performance of materials and products with relevant stakeholders 	<ul style="list-style-type: none"> Conceptualise qualifications and validations of new materials Review the execution of materials qualification 	

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

		<ul style="list-style-type: none"> • Operate a range of common laboratory equipment for sample testing • Follow appropriate Standard Operating Procedures (SOPs) and identify abnormalities • Report data in required format 	<ul style="list-style-type: none"> • Interpret test results for efficiency, utilisation, and productivity • Assist in the preparation of qualification protocols and summary reports • Participate in problem-solving when non-conformances are identified 	<ul style="list-style-type: none"> • Supervise the execution of materials qualification and validation of new materials and products • Enhance production process improvement and lean methodologies • Supervise problem-solving and risk assessments for non-conformances during material qualifications • Determine follow-up actions required for non-conforming materials and products • Review execution protocols and summary reports 	<p>and validation of new material and products</p> <ul style="list-style-type: none"> • Review and approve execution protocols and reports • Review and approve follow-up actions required for non-conforming materials and products • Review the organisation's supply and logistics systems and suppliers through the supply chain • Guide audit supply chain materials • Enhance the manufacturing process 	
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