

**SKILLS FRAMEWORK FOR ENERGY AND CHEMICALS  
SKILLS MAP - MAINTENANCE MANAGER**

<b>Sector</b>	Energy and Chemicals				
<b>Track</b>	Engineering and Maintenance				
<b>Occupation</b>	Manager				
<b>Job Role</b>	Maintenance Manager				
<b>Job Role Description</b>	<p>The Maintenance Manager oversees all activities in the maintenance department and is accountable for achieving high availability of process equipment and systems to improve plant performance and reliability. He/She formulates maintenance and contracting strategies for maintenance and turnaround work, in accordance with the organisation's goals. He endorses maintenance and turnaround schedules to ensure plant availability and reliability.</p>				
	<p>The Maintenance Manager manages asset integrity assurance and improvement activities, as well as asset integrity performance standards and controls. He administers the Workplace Safety and Health (WSH) and Environmental Management Systems (EMS) by endorsing risk assessments for maintenance-related activities and Safe System of Work (SSoW) processes and procedures. He supports the Site Main Controller (SMC) in emergency situations and participates in crisis management activities. In addition, he coaches and mentors maintenance department personnel and reviews and endorses initiatives and activities for plant continuous improvement.</p>				
	<p>The Maintenance Manager works in the field, on either a rotating or day shift, and may be on call. As a department manager, he is required to have good leadership, resource management, planning, analytical and problem-solving skills, and must be able to interact effectively with others, so as to achieve departmental goals.</p>				
<b>Critical Work Functions and Key Tasks</b>	<b>Critical Work Functions</b>		<b>Key Tasks</b>		
	Administer Workplace Safety and Health (WSH) and Environmental Management Systems (EMS)			Audit contractors' compliance with the organisation's WSH and EMS standards and practices	
				Endorse risk assessments for maintenance-related activities	
				Endorse Safe System of Work (SSoW) processes and procedures	
				Review compliance with WSH and EMS regulatory and system requirements	
				Support the incident investigation reviewing process	
	Manage emergency responses and crises			Facilitate responses to crisis situations and recovery activities, in accordance with the crisis management framework and procedures	
				Support the Site Main Controller (SMC) during emergency response situations	
	Perform inspection and maintenance work			Endorse maintenance and turnaround plans and schedules to ensure plant availability and reliability	
				Endorse plant preventive and corrective maintenance activities	
				Endorse Standard Operating Procedures (SOPs) for inspection and maintenance work	
				Ensure the effective implementation of the computerised maintenance management system (CMMS) for maintenance work traceability	
				Formulate contracting strategies for maintenance and turnaround work	
				Manage the availability and reliability of process equipment and systems to minimise downtime and maintenance costs	
				Manage the troubleshooting and rectification of process equipment and systems	
	Manage asset integrity			Provide strategic direction in implementing emerging technologies to enhance plant availability, reliability and to reduce maintenance costs	
		Manage asset integrity performance standards and controls			
		Manage asset risk and reliability analyses and implement improvement activities			
		Manage integrity assurance and improvement activities			
Administer staff and organisational development			Manage the maintenance team's adherence to Management of Change (MOC) processes, policies and procedures		
			Coach and mentor staff		
			Contribute to business continuity planning, implementation and execution		
			Drive departmental performance to achieve organisational goals		
			Manage department level resources and budgets		
		Review and endorse continuous improvement initiatives and activities			
<b>Skills &amp; Competencies</b>	<b>Technical Skills and Competencies</b>		<b>Generic Skills and Competencies (Top 5)</b>		
	Asset Integrity Management	Level 4	Leadership	Advanced	
	Budget Management	Level 5	Resource Management	Advanced	
	Business Continuity Management	Level 5	Developing People	Advanced	
	Change Management	Level 5	Interpersonal Skills	Advanced	
	Continuous Improvement Management	Level 5	Decision Making	Advanced	
	Crisis Management	Level 4			
Electrical Engineering Management	Level 3				

<b>Skills &amp; Competencies</b>	Emergency Response Management	Level 4
	Engineering Management of Change	Level 4
	Environmental Management System Framework Development and Implementation	Level 5
	Incident Investigation Management	Level 5
	Inspection Engineering Management	Level 5
	Internet of Things Management	Level 4
	Maintenance Integrity and Reliability Framework Development and Implementation	Level 4
	Maintenance Planning and Scheduling	Level 5
	Mechanical Rotating Equipment Engineering Management	Level 3
	Mechanical Static Equipment Engineering Management	Level 3
	Organisational Analysis Management	Level 5
	Organisational Resource Management	Level 5
	Plant Turnaround Management	Level 4
	Preventive Maintenance Management	Level 5
	Procurement Management	Level 5
	Reliability Engineering Management	Level 4
	Robotic and Automation System Maintenance	Level 5
	Staff Development Management	Level 5
	Staff Management	Level 5
	Third Party Management	Level 5
Training, Coaching and Assessment Management	Level 5	
Workplace Safety and Health Framework Development and Implementation	Level 5	
Workplace Safety and Health Hazard Identification and Risk Control Management	Level 5	
<b>Programme Listing</b>	For a list of Training Programmes available for the Energy and Chemicals sector, please visit: <a href="http://www.skillsfuture.sg/skills-framework/energyandchemicals">www.skillsfuture.sg/skills-framework/energyandchemicals</a>	

The information contained in this document serves as a guide.