

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

<b>Sector</b>	Energy and Chemicals				
<b>Track</b>	Engineering and Maintenance				
<b>Occupation</b>	Functional Leader				
<b>Job Role</b>	Maintenance Supervisor				
<b>Job Role Description</b>	The Maintenance Supervisor plans and prioritises plant preventive and corrective maintenance activities to facilitate high availability of process equipment and systems for plant operations. He/She supervises maintenance activities for plant turnarounds, routine monitoring and inspection activities, equipment troubleshooting, as well as equipment failure root cause analyses.				
	The Maintenance Supervisor supervises staff and contractors' compliance with Workplace Safety and Health (WSH) and Environmental Management System (EMS) requirements, and participates in incident investigations. He supports the discipline engineering team with integrity assurance, improvement activities and asset risk and reliability analyses. He is a member of the Emergency Response Team (ERT) and contributes to crisis management activities. In addition, he takes charge of his team's personnel capability development by providing coaching and mentoring.				
	The Maintenance Supervisor leads a team in the field, works on either a rotating or day shift, and may be on call. He has good leadership skills and encourages teamwork among his team members. He interacts effectively with others and has good communication, analytical and problem-solving skills.				
<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)			Participate in WSH and EMS incident investigations	
				Supervise compliance with WSH and EMS systems	
				Supervise contractors to ensure compliance with the organisation's WSH and EMS standards and practices	
				Supervise good housekeeping in the workplace	
				Supervise the conduct of activity-based risk assessments	
				Supervise the execution of Safe System of Work (SSoW) procedures	
				Supervise toolbox meetings prior to starting work activities	
	Manage emergency responses and crises			Assist the organisation's crisis management team to continually improve crisis management plans	
				Respond to emergencies as an Emergency Response Team (ERT) member	
	Perform inspection and maintenance work			Ensure timely recording and input of maintenance and inspection work in the computerised maintenance management system (CMMS)	
				Manage condition monitoring and routine inspection of process equipment and systems	
				Plan and prioritise plant preventive and corrective maintenance activities	
				Supervise maintenance work for turnarounds	
				Supervise the application of emerging technologies for inspection and maintenance work within the team	
				Supervise troubleshooting, root cause analyses, and rectification of process equipment and systems	
		Support the development and implementation of Standard Operating Procedures (SOPs) for inspection and maintenance work			
		Validate the testing and commissioning of new and/or modified process equipment and systems			
Manage asset integrity			Participate in integrity assurance and improvement activities		
			Support asset risk and reliability analyses, and implement improvement activities		
Administer staff and organisational development			Coach and mentor staff		
			Identify opportunities for continuous improvement		
			Manage resources within the team		
			Support the implementation of 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 3	Sense Making	Advanced	
	Change Management	Level 4	Decision Making	Intermediate	
	Continuous Improvement Management	Level 3	Leadership	Intermediate	
	Crisis Management	Level 3	Teamwork	Intermediate	
	Data and Statistical Analytics	Level 2	Interpersonal Skills	Intermediate	
	Electrical Field Maintenance Management	Level 4			
	Emergency Response Management	Level 3			
	Engineering Drawing Interpretation and Management	Level 3			
Engineering Management of Change	Level 3				

<b>Skills &amp; Competencies</b>	Environmental Management System Framework Development and Implementation	Level 3	
	Incident Investigation Management	Level 3	
	Inspection Engineering Management	Level 4	
	Instrumentation and Control Field Maintenance Management	Level 4	
	Instrumentation and Control System Maintenance Management	Level 4	
	Internet of Things Management	Level 2	
	Maintenance Integrity and Reliability Framework Development and Implementation	Level 3	
	Maintenance Planning and Scheduling	Level 3	
	Mechanical Field Maintenance Management	Level 4	
	Organisational Resource Management	Level 4	
	Plant Turnaround Management	Level 3	
	Preventive Maintenance Management	Level 4	
	Process Analyser Maintenance Management	Level 4	
	Procurement Management	Level 3	
	Project Management	Level 3	
	Robotic and Automation System Maintenance	Level 4	
	Robotic and Automation Technology Application	Level 3	
	Safe System of Work Development and Implementation	Level 3	
	Staff Development Management	Level 3	
	Staff Management	Level 4	
Technical Report Writing	Level 3		
Third Party Management	Level 4		
Training, Coaching and Assessment Management	Level 4		
Workplace Safety and Health Framework Development and Implementation	Level 3		
Workplace Safety and Health Hazard Identification and Risk Control Management	Level 4		
<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.