

1. Title	Mechanical equipment status monitoring and analysis									
2. Code	EMPEIT501A									
3. Range	Perform mechanical equipment status monitoring and analysis in general industrial plants, power plants or other places.									
4. Level	5									
5. Credits	6									
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <table border="0"> <tr> <td style="vertical-align: top;">6.1</td> <td style="vertical-align: top;">Mode of operation and principles of failure detection of mechanical equipment</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Understand mode of normal operation and properties of general mechanical equipment, such as               <ul style="list-style-type: none"> <li>• Pressure</li> <li>• Temperature</li> <li>• Flow</li> <li>• Abnormal leaks</li> <li>• Abnormal vibration or noise</li> </ul> </li> <li>◆ Understand common failures and detection method for general mechanical equipment including:               <ul style="list-style-type: none"> <li>• Characteristics and causes of failures</li> <li>• Ways of detection such as measuring and analyzing vibrations</li> <li>• Infrared heat detection analysis and heat meter</li> </ul> </li> </ul> </td> </tr> <tr> <td style="vertical-align: top;">6.2</td> <td style="vertical-align: top;">Failure detection method and information analysis techniques for mechanical equipment</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Use detection tools to diagnose operational failures such as abnormal leaks of mechanical equipment</li> </ul> </td> </tr> <tr> <td style="vertical-align: top;">6.3</td> <td style="vertical-align: top;">mechanical Professionalism in detecting and analyzing equipment failures</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Analyze according to mechanical equipment status and correctly diagnose mechanical equipment failures</li> </ul> </td> </tr> </table>	6.1	Mode of operation and principles of failure detection of mechanical equipment	<ul style="list-style-type: none"> <li>◆ Understand mode of normal operation and properties of general mechanical equipment, such as               <ul style="list-style-type: none"> <li>• Pressure</li> <li>• Temperature</li> <li>• Flow</li> <li>• Abnormal leaks</li> <li>• Abnormal vibration or noise</li> </ul> </li> <li>◆ Understand common failures and detection method for general mechanical equipment including:               <ul style="list-style-type: none"> <li>• Characteristics and causes of failures</li> <li>• Ways of detection such as measuring and analyzing vibrations</li> <li>• Infrared heat detection analysis and heat meter</li> </ul> </li> </ul>	6.2	Failure detection method and information analysis techniques for mechanical equipment	<ul style="list-style-type: none"> <li>◆ Use detection tools to diagnose operational failures such as abnormal leaks of mechanical equipment</li> </ul>	6.3	mechanical Professionalism in detecting and analyzing equipment failures	<ul style="list-style-type: none"> <li>◆ Analyze according to mechanical equipment status and correctly diagnose mechanical equipment failures</li> </ul>
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7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to monitor the operation of mechanical equipment; and</p> <p>(ii) Capable to accurately analyze the operational data or information of mechanical equipment.</p>									
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses techniques of operating basic detection tools.									