

1. Title	Test and commission water-based fire system's electrical and mechanical installations
2. Code	EMFSIT401A
3. Range	Lead the testing and commissioning of water-based fire system's electrical and mechanical installations at systems' installation points.
4. Level	4
5. Credit	6
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge of water-based fire system's electrical and mechanical installation testing and commissioning</p> <ul style="list-style-type: none"> <li>◆ Understand the operating principles and performance requirements of various types of water-based fire service electrical and mechanical installations, including: <ul style="list-style-type: none"> <li>• sprinkler system</li> <li>• Fire hydrant/hose reel system</li> <li>• Drencher system</li> <li>• Deluge system</li> <li>• Water spray system</li> </ul> </li> <li>◆ Understand requirements of codes on fire service installations and equipment, design and installation specifications, and approved standards on various types of water-based fire system and installations for testing and commissioning</li> <li>◆ Understand the content of testing and commissioning documents (checklist, testing report form, etc.)</li> </ul> <p>6.2 Methods and procedures of water-based fire system's electrical and mechanical installation testing and commissioning</p> <ul style="list-style-type: none"> <li>◆ Know the methods and procedures of testing and commissioning water-based fire system's electrical and mechanical installations, including conducting inspection, calibration and testing independently</li> <li>◆ Lead the testing and commissioning of water-based fire system's electrical and mechanical installations, including: <ul style="list-style-type: none"> <li>• Static check of system</li> <li>• Functional test of system</li> <li>• Calibration of components to ensure normal operation of system</li> <li>• Measurement of operation data</li> </ul> </li> <li>◆ Analyze abnormal testing results and troubleshoot the problems</li> <li>◆ Use relevant tools and equipments safely and effectively to test and calibrate water-based fire system and installations</li> </ul>

	<p>6.3 Professionalism in testing and commissioning water-based fire system and installations</p> <ul style="list-style-type: none"> <li>◆ Conduct testing and commissioning of water-based fire system and installations according to legal requirements, codes of practice and standards of the trade</li> <li>◆ Record, analyze and report on the testing and commissioning results of water-based fire system and installations</li> </ul>
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to use the expertise to complete the testing and commissioning of water-based fire system's electrical and mechanical installations.</p>
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses knowledge of installing and testing general water-based fire system's electrical and mechanical installations.</p>