

1. Title	Test and commission water heater systems and installations									
2. Code	EMPDIT404A									
3. Range	Use the expertise to conduct testing and commissioning of water heater systems and installations according to drawings.									
4. Level	4									
5. Credits	4									
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;">Knowledge of testing and commissioning water heater systems and installations</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Understand the operating principles and performance requirements of various types of water heater systems and installations ◆ Understand requirements of codes on water heater installations and equipment, design and installation specifications, and approved standards on various types of water supply systems and installations for testing and commissioning ◆ Understand the content of testing and commissioning documents (checklist, testing report form, etc.) </td> </tr> <tr> <td style="vertical-align: top;">6.2</td> <td style="vertical-align: top;">Methods and procedures of testing and commissioning water heater systems and installations</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Know the methods and procedures of testing and commissioning water heater systems and installations, including conducting inspection, calibration and testing ◆ Lead the testing and commissioning of water heater systems and installations, including: <ul style="list-style-type: none"> • Static check of system • Functional test of system • Calibration of components to ensure normal operation of system • Measurement of operation data ◆ Analyze abnormal testing results and troubleshoot the problems ◆ Use relevant tools and equipments safely and effectively to test and calibrate water heater systems and installations </td> </tr> <tr> <td style="vertical-align: top;">6.3</td> <td style="vertical-align: top;">Professionalism in testing and commissioning water heater systems and installations</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Conduct testing and commissioning of water heater systems and installations according to legal requirements, codes of practice and standards of the trade ◆ Record, analyze and report on the testing and commissioning results of water heater systems and installations </td> </tr> </table>	6.1	Knowledge of testing and commissioning water heater systems and installations	<ul style="list-style-type: none"> ◆ Understand the operating principles and performance requirements of various types of water heater systems and installations ◆ Understand requirements of codes on water heater installations and equipment, design and installation specifications, and approved standards on various types of water supply systems and installations for testing and commissioning ◆ Understand the content of testing and commissioning documents (checklist, testing report form, etc.) 	6.2	Methods and procedures of testing and commissioning water heater systems and installations	<ul style="list-style-type: none"> ◆ Know the methods and procedures of testing and commissioning water heater systems and installations, including conducting inspection, calibration and testing ◆ Lead the testing and commissioning of water heater systems and installations, including: <ul style="list-style-type: none"> • Static check of system • Functional test of system • Calibration of components to ensure normal operation of system • Measurement of operation data ◆ Analyze abnormal testing results and troubleshoot the problems ◆ Use relevant tools and equipments safely and effectively to test and calibrate water heater systems and installations 	6.3	Professionalism in testing and commissioning water heater systems and installations	<ul style="list-style-type: none"> ◆ Conduct testing and commissioning of water heater systems and installations according to legal requirements, codes of practice and standards of the trade ◆ Record, analyze and report on the testing and commissioning results of water heater systems and installations
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7. Assessment Criteria	<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 heater systems and installations.</p>									
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses knowledge of installing and testing water supply systems and installations.									