

1. Title	Repair and maintain water systems of central air-conditioning systems	
2. Code	EMACOR309A	
3. Range	Perform repair and maintenance of water systems of central air-conditioning systems at central air-conditioning system machine rooms or air-conditioned areas.	
4. Level	3	
5. Credit	9	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge of repairing and maintaining water systems of central air-conditioning systems</p> <ul style="list-style-type: none"> ◆ Understand the causes and handling methods of typical faults of water systems of central air-conditioning systems ◆ Understand details of maintenance of water systems of central air-conditioning systems ◆ Understand the working principles and installation of typical water systems equipment of central air-conditioning systems <p>6.2 Methods and procedures of repairing and maintaining water systems of central air-conditioning systems</p> <ul style="list-style-type: none"> ◆ Perform water treatment for central air-conditioning systems, including: <ul style="list-style-type: none"> • Quality treatment for chilled water • Sediment control for condensing water • Metallic corrosion control for condensing water • Micro-organism control for condensing water ◆ Clean and wash water systems of central air-conditioning systems , including: <ul style="list-style-type: none"> • Using physical method to clean and wash the chilled water system and cooling water system • Using chemical method to clean and wash the chilled water system and condensing water system during shutdown mode • Using chemical method to clean and wash the chilled water system and condensing water system during non-shutdown mode ◆ Repair and maintain water systems equipment of central air-conditioning systems including cooling tower and water pump <p>6.3 Professionalism in repairing and maintaining water systems of central air-conditioning systems</p> <ul style="list-style-type: none"> ◆ Follow the instructions of repair and maintenance manual to repair and maintain water systems of central air-conditioning systems ◆ Understand the safety guidelines required by the law to repair and maintain water systems of central air-conditioning systems 	

7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to handle and eliminate the faults systematically and efficiently in order to complete the repair and maintenance of water systems of central air-conditioning systems; and (ii) Capable to follow the repair and maintenance manual safely to undertake the tasks of repairing and maintaining water systems of central air-conditioning systems.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of water systems of central air-conditioning systems.</p>