

1. Title	Maintain and repair LPG supply system
2. Code	EMGAOR304A
3. Range	Maintain and repair LPG supply system equipment including gas pipe, liquid pipe, pressure regulator, vaporizer, underground LPG tank and equipment on the tank surface.
4. Level	3
5. Credits	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge and principles of maintaining and repairing LPG supply system</p> <ul style="list-style-type: none"> ◆ Understand the physical properties of LPG in liquid form ◆ Assess the risk of explosion during the LPG supply system maintenance and repair ◆ Use multi-meter correctly to measure the resistance, current and voltage of circuit ◆ Use ammeter correctly to measure current of power line ◆ Use insulation meter to measure insulation resistance of power line ◆ Use phase meter correctly to measure phase sequence of the three-phase power source ◆ Understand various parts of LPG supply system ◆ Understand the work flow of LPG supply system ◆ Understand the functions and operating principles of underground LPG tank and valve equipment on the tank surface <p>6.2 Methods and procedures of maintaining and repairing LPG supply system</p> <ul style="list-style-type: none"> ◆ Test the pressure test for various parts of the LPG supply system regularly (including high pressure pipe, medium pressure pipe, vaporizer, etc.) ◆ Calibrate the gas detection system correctly ◆ Regulate the gas supply pressure of primary regulator

	<ul style="list-style-type: none"> ◆ Regulate the gas supply pressure of 2nd stage regulator and the set point of over and under pressure cut-off ◆ Repair faults of the vaporizer ◆ Measure the cathode protection readings of the underground LPG tank correctly ◆ Repair the gas detection system correctly <p>6.3 Professional knowledge and responsibilities for maintaining and repairing LPG supply system</p> <ul style="list-style-type: none"> ◆ Apply all the provisions in the Gas Safety (Installation and Use) Regulations under the Gas Safety Ordinance, Cap. 51 ◆ Apply the Code of Practice for Hong Kong LPG Industry: Module 1 [LPG Compounds and Cylinder Stores] ◆ Apply other gas related regulations and codes of practice ◆ Understand the classification of hazard zone
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to repair faults of the vaporizer; (ii) Capable to regulate the gas supply pressure of the secondary regulator and the set point of over and under pressure cut-off; and (iii) Capable to test the pressure of the LPG supply system.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses the competency of EMGADE101A 【Basic knowledge of gas application】, EMGAOR203A 【Maintain and repair domestic gas appliances】 and EMGAOR202A 【Maintain and repair gas service pipe】.</p>