

1. Title	Repair and maintain the refrigeration equipment of the cold storage
2. Code	EMACOR307A
3. Range	Perform repair and maintenance of the refrigeration equipment of the cold storage at cold storage and machine rooms.
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 the refrigeration equipment of the cold storage</p> <ul style="list-style-type: none"> ◆ Understand the construction and working principles of typical refrigeration equipment of the cold storage, including: <ul style="list-style-type: none"> • Compressor • Oil-ammonia separator • Condenser • Liquid receiver • Intercooler • Air separator • Brine water evaporator ◆ Understand the working principles of the refrigeration system of the cold storage ◆ Understand the typical faults of the refrigeration system of the cold storage and relevant solutions ◆ Understand the details of regular maintenance for the refrigeration system of the cold storage <p>6.2 Methods and procedures of repairing and maintaining the refrigeration system of the cold storage</p> <ul style="list-style-type: none"> ◆ Remove and add refrigerant oil, including: <ul style="list-style-type: none"> • Replacing refrigerant oil back into the compressor crankcase of an ammonia refrigeration system • Removing refrigerant oil from an ammonia refrigeration system • Adding refrigerant oil to the freon refrigeration system ◆ Remove air and water from the refrigeration system ◆ Conduct leakage test for the refrigeration system, and charge the refrigerant during system operation ◆ Repair compressors, including: <ul style="list-style-type: none"> • Identifying the faults of the compressor • Removing the compressor from the refrigeration system • Conducting a complete overhaul of the compressor • Reinstalling the compressor of the refrigeration system • Conducting a test run for the compressor

	<p>6.3 Professionalism in repairing and maintaining the refrigeration equipment of the cold storage</p> <ul style="list-style-type: none"> ◆ Perform repair and maintenance of the refrigeration equipment of the cold storage independently according to the instructions of the manual ◆ Understand the safety guidelines as required by the law and codes of practice and undertake tasks of repairing and maintaining the refrigeration equipment of the cold storage
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to identify the problems systematically and efficiently; to handle and repair faults so as to complete tasks of repairing and maintaining the refrigeration equipment of the cold storage; and (ii) Capable to undertake tasks of repairing and maintaining the refrigeration equipment of the cold storage safely according to the manual.
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of the refrigeration equipment of the cold storage.</p>