

1. Title	Install thermal insulation materials	
2. Code	EMPEIN305A	
3. Range	Perform difficult tasks for installing thermal insulation materials for devices with irregular shapes in general industrial plants, power plants or other places where temperature is high or jobs are difficult to be carried out.	
4. Level	3	
5. Credits	6	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1      Need and installation requirements for thermal insulation materials</p> <ul style="list-style-type: none"> <li>◆ Be familiar with the equipment and pipe system to be installed with thermal insulation materials, and their requirements on insulation, such as <ul style="list-style-type: none"> <li>• Steam pipe and valve system</li> <li>• Steam turbine</li> <li>• Water system</li> <li>• Membrane wall of boiler furnace</li> </ul> </li> <li>◆ Be familiar with the functions of various types of installation components (such as fastening structure and support ) and the structure of thermal insulation bracket, such as <ul style="list-style-type: none"> <li>• Thermal insulation hook nail</li> <li>• Galvanized hexagonal wire netting</li> <li>• Support screw, self-locking plate and gasket ring</li> <li>• Thermal insulation bracket</li> <li>• Galvanized iron shell</li> </ul> </li> </ul> <p>6.2      Method of installing thermal insulation materials</p> <ul style="list-style-type: none"> <li>◆ Correctly use various types of thermal insulation materials to perform difficult tasks of installation, including: <ul style="list-style-type: none"> <li>• Self-adhesive method by using aluminium silicate blanket or adhering foam rock wool insulating layers</li> <li>• Coating method such as coating layers of magnesium-silicate coating</li> <li>• Wrapping thermal insulation materials on single small-diameter pipe</li> <li>• Filling pipe grooves, valves, flanges and expansion couplings with thermal insulation materials</li> </ul> </li> <li>◆ Perform installation tasks properly according to the requirements of various types of equipment and devices on thermal insulation, including working on the cylinder support with special shape and the suspended structure, and applying thermal installation on tube furnace walls</li> <li>◆ Perform inspection on thermal insulation materials installed</li> </ul>	

	<p>6.3 Professionalism in installing thermal insulation materials</p> <ul style="list-style-type: none"> <li>◆ Follow the requirements of drawing to carry out thermal insulation material installation</li> <li>◆ Follow the safety requirements for work, requirements of the codes of practice and manufacturers' installation guidelines to install thermal insulation materials</li> <li>◆ Control the progress of work according to the engineering requirements, ensuring that the installation procedures are up to the relevant quality standard</li> </ul>
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>(i) Capable to point out and identify various types of thermal insulation materials and device components;</li> <li>(ii) Capable to perform difficult tasks for installing (irregular shapes) thermal insulation materials independently;</li> <li>(iii) Capable to perform inspection independently on thermal insulation materials installed;</li> <li>(iv) Capable to complete simple installation and inspection reports and report the status of installation; and</li> <li>(v) Capable to clearly report the status of installing thermal insulation materials.</li> </ul>
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses the competency of ENPEIN217A "Install thermal insulation materials for regular-shape devices".</p>