

1. Title	Formulate installation instructions for electrical equipment of trains
2. Code	EMRAIN503A
3. Range	Formulate installation instructions for electrical equipment of trains by referring to their design and the installation guidelines provided by the manufacturer, and considering the overall installation of trains.
4. Level	5
5. Credits	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Design and installation principles of electrical system equipment of trains</p> <ul style="list-style-type: none"> ◆ Be familiar with the structure and design of electrical system equipment of trains ◆ Apply the installation guidelines provided by the manufacturer ◆ Master the standard for installing electrical equipment of trains ◆ Be familiar with the applications of instruments and tools commonly used for installing electrical equipment of trains ◆ Design and arrange special tools for installation <p>6.2 Method and procedures of formulating installation instructions for electrical system equipment of trains</p> <ul style="list-style-type: none"> ◆ By referring to the design of electrical system equipment of trains and the installation guidelines provided by the manufacturer, and considering the overall installation of trains, capable to draft installation instructions for the electrical system equipment of trains and their control and protection equipment, including: <ul style="list-style-type: none"> • Installation procedures • Installation standards • Adjustments and preliminary function tests • Points to note during installation ◆ Capable to test the draft installation instructions ◆ Capable to amend and formulate installation instructions for electrical system equipment of trains ◆ Capable to draft, test and formulate installation instructions for the electrical system control and protection equipment of trains ◆ Capable to draft, test and formulate installation instructions for the electric traction system control and protection equipment of trains ◆ Capable to draft, test and formulate installation instructions for inverters of trains and their control and protection equipment ◆ Capable to draft, test and formulate installation instructions for electric motor control and protection equipment of trains ◆ Capable to draft, test and formulate installation instructions for the wiring, the train loop protection circuits and brake loop protection circuits of trains

	<p>6.3 Professionalism in formulating installation instructions for electrical system equipment of trains</p> <ul style="list-style-type: none"> ◆ Capable to formulate installation instructions and standards for electrical system equipment of trains according to the standards and requirements for work safety, health, environmental protection and quality management of railway works ◆ Understand the safety guidelines as required by the law and codes of practice in formulating installation instructions for electrical system equipment of trains
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirement of this unit of competency is:</p> <ul style="list-style-type: none"> (i) Capable to draft installation instructions for specified major electrical equipment of trains and their control and protection circuits in compliance with the installation requirements for train equipment; and (ii) Capable to test the effectiveness of the draft installation instructions and make amendments effectively.
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses professional knowledge of electrical engineering and the electrical equipment of trains.</p>