

1. Title	Formulate maintenance instructions for electrical systems of trains
2. Code	EMRAMA503A
3. Range	Formulate maintenance instructions for electrical systems of trains by referring to their design and the repairing guidelines provided by the manufacturer, and considering the overall operational performance of trains and their repair arrangements and history.
4. Level	5
5. Credits	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Working principles and performance requirements for electrical systems of trains</p> <ul style="list-style-type: none"> ◆ Be familiar with the working principles and performance requirements for the following electrical systems of trains <ul style="list-style-type: none"> • Power system equipment • Electric traction control system equipment • Inverters of trains • Electric motor • Train loop protection circuit ◆ Master the experience in repairing electrical system equipment of trains <p>6.2 Procedures of formulating maintenance instructions for electrical systems of trains</p> <ul style="list-style-type: none"> ◆ By analyzing data, referring to the design of electrical system equipment of trains and the repairing guidelines provided by the manufacturer, and considering the overall operational performance of trains and their repair arrangements and history, capable to draft maintenance instructions for the electrical system equipment of trains ◆ Capable to analyze data from tests and amend the maintenance instructions for the electrical system equipment of trains <p>6.3 Professionalism in formulating maintenance instructions for electrical systems of trains</p> <ul style="list-style-type: none"> ◆ Be familiar with the safety guidelines as required by the law and codes of practice, and apply them in formulating maintenance instructions for electrical systems of trains
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to draft maintenance instructions for specified major electrical equipment of trains and their control and protection circuits in compliance with the maintenance requirements for train equipment; and</p> <p>(ii) Capable to test the effectiveness of the draft maintenance instructions analyze data and make amendments effectively.</p>
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses professional knowledge of electrical systems of trains.