

1. Title	Formulate maintenance plans for railway overhead feeder system equipment
2. Code	EMRAMA604A
3. Range	Calculate the wear rates of different spare parts of power supply system equipment, compare the cost of the spare parts with the maintenance cost and consider the inspection cycle for the equipment and the requirements of the electricity regulations, identify the critical factors in order to calculate the maintenance cycle and formulate maintenance plans.
4. Level	6
5. Credits	20
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Studies and techniques of formulating maintenance cycles for railway overhead feeder system equipment</p> <ul style="list-style-type: none"> <li>◆ Select the best way of railway overhead feeder system equipment maintenance such as regular maintenance, monitoring of operation condition, regular replacement, etc. by applying maintenance knowledge of overhead feeder engineering and considering the operation mode of railway overhead feeder system equipment</li> <li>◆ Master information about review, integration and development of the functional performance of railway overhead feeder system equipment and the wear of consumable parts so as to apply the information in formulating maintenance cycles</li> <li>◆ Master the calculation of the deterioration rate of equipment including the consideration of environmental factors</li> <li>◆ Calculate, analyze and assess the cost effectiveness of adopting different maintenance cycles</li> </ul> <p>6.2 Method and procedures of formulating maintenance cycles for railway overhead feeder system equipment</p> <ul style="list-style-type: none"> <li>◆ Capable to identify power supply equipment parts of higher wear rates, and monitor and calculate their wear rates by applying knowledge and experience in maintaining electrical and mechanical equipment</li> <li>◆ Capable to calculate the cost of spare parts and the maintenance cost based on the equipment parts of higher wear rates</li> <li>◆ Capable to identify the critical factors for maintenance cycles of railway overhead feeder system equipment and calculate their maintenance cycles by fully considering factors like the equipment performance, wear rates of critical consumable parts, wear cost and maintenance cost</li> <li>◆ Capable to formulate basic maintenance plans based on the critical factors and the maintenance cycle calculated for the overhead line equipment</li> </ul>

	<ul style="list-style-type: none"> <li>◆ Capable to identify other factors of consideration and calculate the cycles for different levels of maintenance</li> <li>◆ Capable to formulate a basic maintenance plan according to critical factors and the maintenance cycles for power switches in the switch room, control and protection equipment and electricity quality improvement equipment based on the critical factors</li> <li>◆ Capable to identify other factors of consideration and calculate the cycles for different levels of maintenance and the basic content of maintenance</li> </ul> <p>6.3 Professionalism in formulating maintenance plans for railway overhead feeder system equipment</p> <ul style="list-style-type: none"> <li>◆ Formulate maintenance plans for railway overhead feeder system equipment according to the standards and requirements for safety, health, environmental protection and quality management of railway works</li> <li>◆ Understand the safety guidelines as required by the law and codes of practice in formulating maintenance plans for railway overhead feeder system equipment</li> </ul>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to formulate maintenance cycles for different levels of train maintenance and the basic content of maintenance of related equipment effectively and accurately based on data about the deterioration of railway overhead feeder system equipment parts and some other critical factors.</p>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses professional knowledge of overhead feeder system engineering and railway operation.</p>