

1. Title	Troubleshoot intermittent and hidden faults in the railway overhead feeder system	
2. Code	EMRAOR403A	
3. Range	Apply fault finding and analysis techniques professionally with a good knowledge of the equipment system at power control rooms, switch rooms and areas with the railway overhead feeder system to identify the root causes of faults in such system.	
4. Level	4	
5. Credits	5	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Techniques of analyzing and finding intermittent and hidden faults in railway overhead feeder system equipment</p> <ul style="list-style-type: none"> <li>◆ Understand the causes and types of intermittent and hidden faults</li> <li>◆ Master the techniques of analyzing intermittent and hidden faults</li> <li>◆ Understand the operation characteristics of railway overhead feeder system equipment, and the devices and circuits which are prone to hidden faults</li> </ul> <p>6.2 Methods and procedures of finding intermittent and hidden faults in railway overhead feeder system equipment</p> <ul style="list-style-type: none"> <li>◆ Apply the following techniques to find hidden faults in railway overhead feeder system equipment effectively so as to improve the efficiency of finding faults <ul style="list-style-type: none"> <li>• Analyze past fault symptoms and identify suspected faulty equipment</li> <li>• Simulate different operation conditions to trigger hidden faults</li> </ul> </li> <li>◆ Analyze the performance data of relevant system equipment</li> <li>◆ Apply the following techniques to find intermittent faults in railway overhead feeder system equipment effectively so as to improve the efficiency of finding faults <ul style="list-style-type: none"> <li>• Use the data logging instruments of the railway overhead feeder system and select relevant information for fault analysis</li> <li>• Install and connect data logging instruments for monitoring of faults</li> <li>• Install and connect the fault latching circuit for monitoring of faults</li> <li>• Interchange with identical equipment for testing (by trial and error)</li> <li>• Simulate different operation conditions to trigger intermittent faults</li> <li>• Analyze the performance data of relevant system equipment</li> </ul> </li> <li>◆ Use general E&amp;M and overhead line measuring and testing instruments and data logging instruments efficiently</li> </ul>	

	<p>6.3 Identifying Professionalism in intermittent and hidden faults in railway overhead feeder system equipment</p> <ul style="list-style-type: none"> <li>◆ Identify intermittent and hidden faults in railway overhead feeder system equipment according to the standards and requirements for work 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 to handle supervision work of identifying intermittent and hidden faults in railway overhead feeder system equipment</li> </ul>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <ul style="list-style-type: none"> <li>(i) Capable to identify a preset hidden faults in a railway overhead feeder system within a reasonable period of time; and</li> <li>(ii) Capable to illustrate the techniques of identifying intermittent faults in the railway overhead feeder system.</li> </ul>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person is familiar with the operation and working principles of the railway overhead feeder system and equipment.</p>