

1. Title	Formulate the inspection, commissioning and testing guidelines and standards for the railway traffic management system
2. Code	EMRAIT509A
3. Range	Refer to the design of the railway traffic management system and the overall design of the railway signal and control system and apply knowledge and techniques of electronic control programme and network system to formulate the inspection, commissioning and testing guidelines and standards for the railway traffic management system.
4. Level	5
5. Credits	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Design, working principles and standards of the railway traffic management system</p> <ul style="list-style-type: none"> <li>◆ Understand the design, structure and working principles of the railway traffic management system</li> <li>◆ Know about the application of the inspection and testing guidelines of manufacturers</li> <li>◆ Master the techniques of working out the inspection, commissioning and testing standards for the railway traffic management system</li> <li>◆ Understand the application of typical measuring and testing instruments and tools for the railway traffic management system</li> </ul> <p>6.2 Methods and procedures of formulating the inspection, commissioning and testing guidelines for the railway traffic management system</p> <ul style="list-style-type: none"> <li>◆ Refer to the design of the railway traffic management system and the overall signal control design and draft, test and formulate the inspection, commissioning and testing guidelines and standards for the control programming system. Aspects to be covered are: <ul style="list-style-type: none"> <li>• Inspection procedures (including visual inspection and data taking) and standards</li> <li>• Function tests and standards</li> <li>• Interlock tests and standards</li> <li>• Standards for equipment setting</li> <li>• Important points for inspection, testing and setting</li> </ul> </li> <li>◆ Draft, test and formulate the inspection, commissioning and testing guidelines and standards for the following systems and equipment <ul style="list-style-type: none"> <li>• Signal and control monitoring system</li> <li>• Routing and programming control system</li> <li>• Train location indication and communication system</li> <li>• Train operation control system</li> <li>• Data collection and management reporting system</li> <li>• Interface devices (including human-machine interface)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>◆ Draft, test and formulate the inspection, commissioning and testing guidelines and standards for the following network equipment of the railway traffic management system <ul style="list-style-type: none"> <li>• LAN</li> <li>• WAN</li> <li>• Signal transmission equipment</li> <li>• Interface devices</li> </ul> </li> </ul> <p>6.3 Professionalism in formulating the inspection, commissioning and testing guidelines for the railway traffic management system</p> <ul style="list-style-type: none"> <li>◆ Formulate the inspection, commissioning and testing guidelines for the railway traffic management system 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 in formulating the inspection, commissioning and testing guidelines for the railway traffic management system</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 draft a set of inspection, commissioning and testing guidelines and standards for a specified railway traffic management system according to commissioning requirements; and</li> <li>(ii) Capable to test the effectiveness of the drafted inspection, commissioning and testing guidelines and standards efficiently; analyze data and conduct reviews and modifications.</li> </ul>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses professional knowledge of electronic control circuit and railway signal system.</p>