

1. Title	Formulate the inspection, commissioning and testing guidelines and standards for the pneumatic equipment of trains
2. Code	EMRAIT502A
3. Range	Refer to the design of the pneumatic equipment of trains and the inspection and testing guidelines of manufacturers and undertake site inspection, measurement and tests of the equipment so as to formulate the inspection, commissioning and testing guidelines and standards for the pneumatic equipment of trains.
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 pneumatic system equipment of trains</p> <ul style="list-style-type: none"> ◆ Understand the design, structure and working principles of the pneumatic equipment of trains ◆ Know about the application of the inspection and testing guidelines of manufacturers ◆ Master the techniques of working out the inspection, commissioning and testing standards for the pneumatic system equipment of trains ◆ Understand the application of typical pneumatic equipment measuring and testing instruments and tools <p>6.2 Methods and procedures of formulating the inspection, commissioning and testing guidelines for the pneumatic system equipment of trains</p> <ul style="list-style-type: none"> ◆ Refer to the design of the air compressors of trains and the inspection and testing guidelines of manufacturers and undertake site observation, measurement and testing of the equipment and draft the inspection, commissioning and testing guidelines and standards for the air compressors and control and protection equipment of trains. Aspects to be covered are: <ul style="list-style-type: none"> • Inspection procedures (including visual inspection and data taking) and standards • Testing procedures and standards (including insulation, continuity and function tests) • Procedures and standards of equipment setting • Important points for inspection, testing and setting ◆ Test the drafted inspection, commissioning and testing guidelines and standards ◆ Analyze data and modify and formulate the inspection, commissioning and testing guidelines and standards for the air compressors and control and protection equipment of trains

	<ul style="list-style-type: none"> ◆ Draft, test and formulate the inspection, commissioning and testing guidelines and standards for the pipe line installations and protection equipment of trains ◆ Draft, test, analyze data and formulate the inspection, commissioning and testing guidelines and standards for various pipe line and pneumatic equipment of the pneumatic systems of trains ◆ Draft, test, analyze data and formulate the procedures and standards for pressure and leak tests of the entire pneumatic system of trains <p>6.3 Professionalism in formulating the inspection, commissioning and testing guidelines for the pneumatic system equipment of trains</p> <ul style="list-style-type: none"> ◆ Formulate the inspection, commissioning and testing guidelines for the pneumatic 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 the inspection, commissioning and testing guidelines for the pneumatic system equipment of trains
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to draft a set of inspection, commissioning and testing guidelines and standards for the pneumatic devices of trains according to commissioning requirements; and</p> <p>(ii) Capable to test the effectiveness of the drafted inspection, commissioning and testing guidelines and standards efficiently; analyze data and conduct reviews and modifications.</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 pneumatic engineering and is familiar with the pneumatic devices of trains.</p>