

1. Title	Verify the design of railway traffic management systems and perform design reviews
2. Code	EMRADE521A
3. Range	Verify the design of railway traffic management systems and perform design reviews according to the overall design requirements for railway signal and control systems and matching with the operation of all kinds of trains.
4. Level	5
5. Credits	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Design requirements for railway traffic management systems and requirements of the operation of all kinds of trains</p> <ul style="list-style-type: none"> ◆ Understand the design requirements for railway traffic management systems and master the key points. The equipment includes: <ul style="list-style-type: none"> • Signal and control monitoring systems • Routing and programming control systems • Train location indication and communication systems • Data collection and management reporting systems • Network systems • Signal transmission equipment • Interface devices ◆ Understand the requirements of the operation of all kinds of trains on the design of railway operation control and monitoring <p>6.2 Methods and procedures of verifying the design of railway traffic management systems and performing design reviews</p> <ul style="list-style-type: none"> ◆ Verify the design of signal and control monitoring systems according to the requirements for railway operation control and monitoring ◆ Verify the design of routing and programming control systems according to train schedules, routes, car speed and rail track speed limit ◆ Verify the design of train location indication and communication systems according to the requirements for railway operation monitoring and communication ◆ Verify the design of data collection and management reporting systems according to the requirements for railway operation ◆ Verify the design of network systems and signal transmission equipment according to the operational requirements for the railway traffic management systems ◆ Verify the design of interface devices in coordination with the requirements for the railway traffic management systems ◆ Review comprehensively the design of railway traffic management systems according to the requirements for the overall design of railway signal and control systems

	<p>6.3 Professionalism in verifying and reviewing the design of railway traffic management systems</p> <ul style="list-style-type: none"> ◆ Verify the design of railway traffic management systems and perform design reviews 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 verifying and reviewing the design of railway traffic management systems
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirement of this unit of competency is:</p> <ul style="list-style-type: none"> (i) Capable to verify the design of railway traffic management systems efficiently according to the overall requirements for railway signal and control systems and design standards for railway traffic management systems; and (ii) Capable to review the design of railway traffic management systems efficiently to match with the requirements on railway operation.
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses professional knowledge of railway signal and control systems.</p>