

1. Title	Verify the design of electric multi-car train door system and perform design reviews
2. Code	EMRADE510A
3. Range	Apply the professional knowledge and techniques of train door system engineering to verify the design of electric multi-car train door system and perform design reviews according to the design requirements and in coordination with the overall train design.
4. Level	5
5. Credits	6
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Design requirements for electric multi-car train door system to match with the overall train design</p> <ul style="list-style-type: none"> ◆ Understand the design requirements for electric multi-car train door system and master the key points. The system equipment includes: <ul style="list-style-type: none"> • Train door mechanical equipment • Control circuits and equipment • Protection circuits and equipment ◆ Master the key points of the overall train design and the techniques of matching the design of multi-train door system with the overall train design <p>6.2 Methods and procedures of verifying the design of electric multi-car train door system and performing design reviews</p> <ul style="list-style-type: none"> ◆ Verify the design of the electric multi-car train door system control circuits and equipment according to the carrying capacity of the train, number of doors for each car of the train and the door structure ◆ Verify the design of the control circuits and equipment according to the requirements on train door opening and closing during normal service ◆ Verify the design of the train door mechanical equipment according to the design requirements train door ◆ Verify the design of the train door protection circuits and equipment, including the train door closing status confirmation devices and indicators according to the design requirements for train door safety protection ◆ Verify the design of train door isolation and circuits ◆ Review comprehensively the design of the electric multi-car train door system according to the requirements on train door closing and opening ◆ Consider the safety, reliability and efficiency of trains during design reviews

	<p>6.3 Professionalism in verifying and reviewing the design of electric multi-car train door system</p> <ul style="list-style-type: none"> ◆ Verify the design of electric multi-car train door system 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 electric multi-car train door system
<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 the multi-train door system equipment of trains efficiently according to relevant design standards; and (ii) Capable to review the design of electric multi-car train door system efficiently according to the standards complying with the overall train design.
<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 electrical and mechanical, including pneumatic, engineering and is familiar with the working principles of electric multi-car train door system.</p>