

1. Title	Verify the design of train compartment frame, body, head and interior and perform design reviews
2. Code	EMRADE512A
3. Range	Apply the professional knowledge and techniques of mechanics and design to verify the design of train compartment frame, body, head and interior and perform design reviews according to the design requirements and matching with the overall train design.
4. Level	5
5. Credits	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Design requirements for train compartment frame, body, head and interior to match with the overall train design</p> <ul style="list-style-type: none"> ◆ Understand the design requirements for train compartment frame, body, head and interior and master the key points ◆ Master the key points of the overall train design and the techniques of matching the design of train compartment frame, body, head and interior with the overall train design ◆ Know about data calculations related to mechanics of materials <p>6.2 Methods and procedures of verifying the design of train compartment frame, body, head and interior and performing design reviews</p> <ul style="list-style-type: none"> ◆ Verify the design of different parts of the compartment frame according to the design requirements for mechanics of compartment frame of trains ◆ Verify the design of different parts of the compartment body and head according to the design requirements for mechanics of train compartment body and head ◆ Verify the design of different parts of the car body and head according to the design requirements for the exterior of car body and head of trains ◆ Verify the design of train compartment frame, body and head according to the requirements for the overall design of train motion ◆ Verify the design of compartment lighting, air-conditioning outlets and compartment layout according to the design requirements for the interior of train compartments ◆ Verify the design of train compartment interior according to the carrying capacity of trains and the compartment space ◆ Review comprehensively the design of train compartment frame, body and head according to the requirements for the overall train design ◆ Review comprehensively the design of train compartment interior according to the requirements for the overall train design

	<p>6.3 Professionalism in verifying and reviewing the design of train compartment frame, body, head and interior</p> <ul style="list-style-type: none"> ◆ Consider the safety, reliability, comfort, environmental protection and efficiency of trains and the railway during verification and reviews. Verify the design of train compartment frame, body, head and interior and perform design reviews according to the standards and requirements for work safety, health, environmental protection and quality management of railway works ◆ Understand codes of practice and the standards and requirements for quality management to handle tasks of verifying and reviewing the design of train compartment frame, body, head and interior
7. Assessment Criteria	<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 different parts of the train compartment frame efficiently according to relevant design standards; (ii) Capable to verify the design of different parts of the compartment body and head efficiently according to relevant design standards; (iii) Capable to verify the design of train compartment interior efficiently according to relevant design standards; and (iv) Capable to review the overall design of train compartment frame, body, head and interior efficiently according to the standards complying with the overall train design.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses professional knowledge of mechanical engineering.</p>