Specification of Competency Standards
for the Automotive
Unit of Competency

Functional Area - Vehicle Servicing

Title	Risk assessment, emergency rescue and remedy actions for handling broken-down or damaged electrified vehicles
Code	111746L4
Range	This unit of competency is applicable in and beyond the vehicle service workshops. Practitioners should be able to carry out risk assessments on work safety and system intactness of electrified vehicles safely according to the instructions in the corresponding vehicle manufacturer's service manual and the relevant requirements on gas safety, road and vehicle safety, environmental protection, occupational safety and health regulations. They should also be able to handle potential hazards, conduct basic tests on components, and provide written report upon completion of the assessment.
Level	4
Credit	5 *(For Reference Only)*
Competency	**Performance Requirements** 1. Knowledge (Potential hazards of broken-down and damaged electrified vehicles and the associated preventive measures) • According to the instructions in the corresponding vehicle manufacturer's service manual, explain the potential hazards and preventive measures associated with mechanical/electrical breakdown and damage for electrified vehicles. • Master the use of special service tools and detection devices, personal protection and first-aid equipment for relevant tasks. • Master the risk assessment procedures and technique. • Master the judgement criteria on breakdown or damage condition. • Master intensive knowledge in the construction and operation of different kinds of electrified vehicles, including motorcycles, light and heavy vehicles. • Master the intensive knowledge in emergency rescue and remedy • Understanding of the relevant legal requirements on gas safety, road and vehicle safety, occupational safety and health, and environmental protection.

	2. Performance (Work with mechanical / electrical broken-down and damaged electrified vehicles) • According to the instructions in the corresponding vehicle manufacturer's service manual, judgement criteria and the requirements of gas safety, occupational safety and health, as well as that of environmental protection, safely process the risk assessment, emergency rescue or remedy procedures with mechanical/electrical breakdown and damage of electrified vehicles, such as motorcycles, fuel cell electric, battery electric and hybrid electric vehicles, including: ◦ Analyse the suitability of information about potential hazards affecting the working environment, such as electrical insulation and gas tightness (for fuel-cell electric vehicles only) ◦ Demonstrate risk assessment for handling the rescue or remedy ◦ Demonstrate the power down procedures for the high-voltage sysetm ◦ Identify the rescue and remedy procedures for allowing a safe working environment • Conduct performance and safety review after the risk assessment, rescue or remedy, and provide written report focusing on: ◦ Abnormalities ◦ Measurement data ◦ Major decisions
Assessment Criteria	The integrated outcome requirements of this unit of competency are that the practitioner being assessed shall prove that he/she is: • Capable of conducting risk assessment procedures to allow a safe emergency rescue, remedy actions and environment for broken-down and damaged electrified vehicles, including motorcycles, fuel cell electric, battery electric and hybrid electric vehicles, according to the instructions in the corresponding vehicle manufacturer's service manual and the relevant requirements on gas safety, road and vehicle safety, environmental protection, occupational safety and health regulations; and • Capable of conducting safety reviews on the electrified vehicle and system intactness upon completion of risk assessment, emergency rescue and remedy, and providing written report.
Remark	The credit value of this unit of competency is set on the presumption that the practitioner concerned already possesses good knowledge in the construction and operation of electrified vehicles. The practitioner concerned should be a recognised competent person in electrified vehicles, such as a registered vehicle mechanic who has completed an electric vehicle – high voltage training course, or equivalent, and be a competent person in hydrogen fuel cell electric vehicles recognised by the authority concerned in the case of handling the fuel cell electric vehicles.