



Australian Government

**Assessment Requirements for AURTTL014
Analyse and evaluate faults in gas fuel
systems**

Release: 1

Assessment Requirements for AURTTL014 Analyse and evaluate faults in gas fuel systems

Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- analyse and evaluate a fault in:
 - a gas fuel system
 - the electrical control of a different gas fuel system
 - the electronic control of a third gas fuel system.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to analysing and evaluating faults in gas fuel systems, including procedures for working with extremely cold and flammable gas
- environmental requirements, including procedures for preventing loss of gas to atmosphere
- principles and processes involved in planning and implementing analysis and evaluation of gas fuel system faults
- design and planning of diagnostic procedures of gas fuel system faults, including procedures for diagnosing:
 - fuel faults
 - mechanical faults
 - electrical faults
- procedures for analysing and evaluating gas fuel system faults, including:
 - system failure analysis
 - component failure analysis

- types, functions, operation and limitations of gas fuel systems, including:
 - compressed natural gas (CNG)
 - liquefied natural gas (LNG)
 - liquefied petroleum gas (LPG)
- impact of other associated vehicle systems on gas fuel system operation, including:
 - ignition system and components
 - engine and components
 - cooling system and components
 - intake system and components
 - exhaust system and components
- testing procedures for gas fuel systems, including:
 - gas system performance under load
 - safety cut-out operation
 - convertor operation
 - mixer or injector operation
- types, functions, operation and limitations of diagnostic testing equipment required to analyse and evaluate faults in gas fuel systems
- procedures for documenting and reporting the analysis and evaluation process
- requirements of Australian Design Rules (ADRs) and Australian standards relating to gas fuel systems.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the gas fuel systems that they have worked on, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- manufacturer gas fuel system specifications
- three different gas fuel systems with faults
- diagnostic equipment for gas fuel systems
- tools, equipment and materials appropriate for analysing and evaluating gas fuel systems.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

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