



**Australian Government**

# **UEGNSG040 Use a portable detector to locate a combustible gas escape**

**Release: 1**

# UEGNSG040 Use a portable detector to locate a combustible gas escape

## Modification History

**Release 1.** This is the first release of this unit of competency in the UEG Gas Industry Training Package.

## Application

This unit involves the skills and knowledge required to use a portable gas detector to locate a combustible gas escape.

It includes using portable gas detection devices to locate, pinpoint and classify gas escapes and completing relevant documentation in accordance with relevant legislative, industry standards and code of practice requirements.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

Support Services

## Unit Sector

Gas Industry

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### **1 Prepare to use portable gas detection device**

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Workplace safety, environmental and sustainable energy practices for the site are identified, obtained and understood
- 1.2** Gas or vapour to be detected is determined from

- workplace documentation and/or in consultation with relevant person/s
- 1.3** Gas detection devices are checked for calibration and response in accordance with manufacturer instructions and workplace procedures for use with the appropriate combustible gas
  - 1.4** Personal protective equipment (PPE) is obtained and checked for correct operation and safety in accordance with workplace procedures for use with the appropriate combustible gas
- 2 Use gas detectors and pinpoint gas escapes**
- 2.1** Workplace safety risk control measures and environmental policies and procedures are followed in accordance with workplace procedures
  - 2.2** Gas detection device is used in accordance with manufacturer instructions, workplace procedures and environmental conditions
  - 2.3** Gas properties and characteristics and environmental conditions are considered and monitored when determining probable areas that gases could accumulate
  - 2.4** Gas detector readings are interpreted correctly, converted to relevant percentage and recorded in accordance with regulations and workplace procedures
  - 2.5** Gas escapes are located and pinpointed in accordance with workplace procedures
  - 2.6** Required actions are determined and communicated to relevant person/s in accordance with workplace procedures
- 3 Complete the use of gas detector equipment and complete relevant documentation**
- 3.1** Gas detection devices are purged, disassembled and stored in accordance with manufacturer instructions and workplace procedures
  - 3.2** Storage, use and calibration records of the gas detection device are maintained in accordance with workplace procedures
  - 3.3** Worksite is cleaned, reinstated and made safe in accordance with workplace procedures
  - 3.4** Incidents are reported and followed up as required in

accordance with workplace procedures

**3.5** Relevant person/s is notified of work completion in accordance with workplace procedures

**3.6** Reports and documentation are completed accurately, and readings recorded and maintained in accordance with workplace procedures

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEG Gas Industry Training Package Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to UEGNSG006 Use a portable detector to locate escape.

## Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6a6c032e-ffcb-4f3d-8063-415efbd261e8>

# Assessment Requirements for UEGNSG040 Use a portable detector to locate a combustible gas escape

## Modification History

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## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying relevant workplaces safety requirements, including using risk control measures
- applying sustainable energy principles and practices
- communicating effectively with relevant stakeholders
- completing workplace documentation
- determining if the relevant area is safe to enter based on combustible gas levels in accordance with workplace procedures
- interpreting maps and asset records
- monitoring gases and workplace hazards
- reading, interpreting and converting gas readings and indications, including:
  - identifying highest reading locations
  - locating and pinpointing gas escapes
  - recording gas detection readings
  - verifying actual escape location
- using environmental indicators to assist in gas detection
- using personal protective equipment (PPE) required for conditions
- using portable gas detection devices, including:
  - device maintenance
  - ensuring device/equipment calibration and keeping records
  - start-up and shutdown procedures
  - storage requirements.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- factors affecting the frequency of monitoring
- gas and vapour properties

- hazards, risk assessments and control measures
- combustible gas, characteristics and properties, including but not limited to natural gas, propane and hydrogen
- portable gas detection devices, including:
  - purpose, types and applications
  - start-up and shutdown procedures
  - use of gas detection equipment
  - calibration requirements and methods
  - storage requirements
- probable areas that gases could accumulate
- relevant legislations, regulations, industry standards and codes of practices
- relevant manufacturer instructions
- relevant PPE
- relevant safe work method statements (SWMS)/job safety analysis (JSA) or risk mitigation processes
- relevant workplace safety requirements, including:
  - legislated work health and safety (WHS)/occupational health and safety (OHS) requirements
  - legislated industry/technical specific requirements
  - workplace safety procedures
  - manufacturer requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- signs, symbols, terminology and legends used
- techniques to locate and pinpoint gas escapes.

## Assessment Conditions

As a minimum, assessors and assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and PPE currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

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