



# **Gas Network Craftsperson Emergency response Practical Task 7 - GCOM End-Point Assessment**

**Gas Combustion**

**Unit Code GCOM  
Level 3**

## Practical Task Specification

This specification has been developed as part of the Gas Network Craftsperson emergency response pathway the specification details the apprentice's required skills, knowledge and behaviour on all relevant matters of gas safety in relation to the satisfactory combustion of natural gas and the use of carbon monoxide detectors.

The specification is the minimum core gas safety standard of these requirements, but this does not preclude employers from enhancing the skills and knowledge of the learner through additional or company specific training.

Successful completion of this practical task will provide evidence that the apprentice has the required knowledge, understanding and performance skills to inspect natural gas flame pictures and to determine the correct operation of carbon monoxide detectors.

### **What does this specification look like?**

Gas emergency response apprentices will be able to:

- Inspect flame pictures and determine the combustion status
- Identify incomplete combustion on gas appliances
- Identify suitable and unsuitable carbon monoxide detectors
- Identify suitable and unsuitable locations for the installation of CO detectors
- Identify and apply the correct notices, forms and labels as required for domestic gas installation

### **What does the assessment include?**

This assessment covers the following matters of gas safety requirements:

- Products and characteristics of combustion

To achieve this unit the apprentice must demonstrate their achievement of all assessment outcomes. This unit will be evidenced through practical assessment, typically being delivered under simulated conditions, in a realistic workplace environment. Evidence of the apprentice's achievement must be included in their work log or their portfolio.

The practical task will include:

- Natural gas burners with both complete and incomplete combustion
- CO detectors including:
  - CO detector cards
  - Smoke detectors
  - Electronic CO detectors
  - The correct identification of installation requirements / faults

## Realistic Working Environments (RWE) Centre Requirements

Centres are responsible for ensuring that the RWE assessment is suitably controlled to ensure that assessment decisions are valid and reliable, and that work submitted for assessment by the apprentice is prepared and produced by them independently, without assistance from others, and free of plagiarism.

The practical task must be designed following the guidance and requirements given in this document. Technical Expert checklist must be adhered to and cannot be altered without prior written consent from EUIAS.

Centres may deliver any number of the matters of gas safety assessments together in combined assessment of their own design, but this must be in with the prior agreement with EUIAS.

Where the combined option is used the performance and knowledge criteria of each unit assessment must be satisfied and the respective Technical Expert checklists must be completed.

The following normative documents should be made available to the apprentice throughout the assessment process:

Building Regulations

BS6891

BS6400

BS7967

BS5440

IGE/UP/1B

GSIUR

GSIUP version 7

BS7671 / on-site guide to BS7671

Manufacturers' instructions for the appliances being inspected

Manufacturers' instructions for the detector being inspected

## Practical Task Centre Requirements

The assessments covering the matters of gas safety requirements are:

- GCOM1 The visual inspection of the flame picture of burners
- GCOM2 The identification of incomplete combustion on appliances
- GCOM3 The identification of suitable and unsuitable CO detectors and their locations

The practical task must be assessed by a Technical Expert who is independent of the apprentice; please refer to the gas network craftsman scheme handbook for further details

For **GCOM1** and **GCOM2** the assessment area must be designed for the apprentice to identify faulty combustion through visual inspection and should include:

- A selection of appliances showing signs of incomplete combustion with all of the following:
  - Excessive gas rates or burner pressure too high or enlarged injector
  - Blocked or damaged heat exchanger
  - Blocked or defective flue
  - Signs of incomplete combustion in and around an appliance
  - A cooker hotplate with a selection of satisfactory and defective burners demonstrating both complete and incomplete combustion
- Faults should be created using simulated, naturally occurring causes e.g. lint, incorrectly adjusted aeration, worn and defective components.

Centres may create workbooks containing a written scenarios, drawings, power-point presentations and photographs etc. which will allow apprentices to identify examples of incomplete combustion to compliment the assessment. However the same media must not have been utilised as part of the apprentice's training.

For **GCOM3** the assessment area must be designed to allow the apprentice to identify:

- a) Electronic CO detectors both hard wired and battery supplied
- b) CO detector cards
- c) Smoke detectors
- d) Suitable locations for the installation of such detectors
- e) Unsuitable locations for the installation of such detectors

Centres may create workbooks containing a written scenarios, drawings, power-point presentations and photographs etc. which will allow apprentices to identify examples of faulty detectors, and determine suitable and unsuitable locations for their installation the assessment. However the same media must not have been utilised as part of the apprentice's training.

The full range of warning labels and advisory notices and appropriate documentation for the recording of defects should be made available to the apprentice.

The area used for this exercise must be for assessment purposes only and the apprentice must not have had prior access to this area.

## Apprentice Requirements

To achieve a pass in these assessments the apprentice must complete all of the following:

- Ensure all health and safety requirements are observed throughout the assessment
- Identify examples of complete combustion
- Identify examples of incomplete combustion
- Identify suitable locations for CO detectors
- Identify unsuitable locations for CO detectors
- Identify the correct operation of CO detectors
- Identify common fault conditions of CO detectors
- Recognise when a CO detector is in “alarm” conditions

## Grading

This assessment is graded as Pass or Fail. The Technical Expert will determine successful completion of the practical tasks using the Technical Expert checklist. This will determine Pass or Fail.

## Assessment Duration

The apprentice has 30 minutes to complete **GCOM1** and **GCOM2**.  
The apprentice has 45 minutes to complete **GCOM3**.