ENERGY & UTILITIES INDEPENDENT ASSESSMENT SERVICE

Gas Network Craftsperson Emergency response Practical Task 5 - DPWI End-Point Assessment

Domestic Pipework Installations

Task Code DPWI
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 pipework installation.

The assessment 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 install, test, and maintain domestic gas pipework installations.

What does this specification look like?

Gas emergency response apprentices will be able to:

- Design gas systems for installing gas pipework
- Plan and prepare work activities for installing domestic gas pipework to one of the following: space heaters, gas cookers, tumble dryers or leisure appliances
- Install a small domestic gas installation
- Replace, exchange, and remove gas pipework to industry standards
- 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:

- The installation of pipework and fittings of diameters 6mm to 35mm
- The tightness testing and purging of low-pressure, natural gas installations of volumes ≤ 0.035 m^3

To pass the practical task, the apprentice must demonstrate their achievement of all assessment outcomes. This 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 recorded on the assessment templates provided and on the practical task record form. Practical tasks whilst retained within the apprentice's logbook cannot be used as evidence of logbook criteria completion.

The practical task will include:

- The installation of appliance points
- Satisfactory completion of tightness test using air
- The correct identification of installation defects

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. The 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

Practical Task Centre Requirements

The assessments covering the matters of gas safety requirements are:

DPWI1 The installation of pipework and fittings of diameters 6mm to 35mm
DPWI2 The tightness testing and purging of low-pressure, natural gas installations of volumes ≤ 0.035 m³
DPWI3 Identification of pipework installation defects

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

For DPWI1 **and** DPWI2 the assessment area must be designed for the apprentice to install a low-pressure natural gas installation that includes all of the following criteria:

- A domestic gas meter
- Pipework of the following type and diameter:
  - 35mm copper tube
  - 22mm copper tube
  - 15mm copper tube
  - 1" Mild steel tube
- Pipework fittings and equipment to install the installation including
  - Meter regulator and meter connections
  - Solder ring fitting
  - End feed fitting
  - Press fit connection
  - 22mm – 1"BSP connection
  - 1"BSP union
  - Diameter reducing fitting
  - Leisure point
  - Cooker back plate elbow

- The assessment area must allow provision for the apprentice to produce both and parallel off – set bend (return set) and a 90^0 bend using either a bending spring or hand held bending machine
- The centre must supply all the installation materials to connect the meter to the appliance points
- Prior to commencing the assessment the ECV must be capped off with the meter and all fixings required being made available for the learner to select and install this in line with industry standards
- The assessment area must be devoid of any labels and notices but a selection of appropriate labels and notices are made available for the apprentice to choose and apply as necessary
- Centres are free to arrange assessment bays to suit their requirements providing that the conditions of providing a realistic working environment and safety requirements are met
- The area used for assessment must be for such purposes only and the apprentice must not have previously worked in the same area or bay
- The apprentice must be provided with a diagram of the completed installation design

For DPWI3 the assessment area must be designed to allow the apprentice to identify pipework installation defects on a low-pressure natural gas installation that includes all of the following criteria:

- Pipe passing through a wall un-sleeved
- Pipe passing through an unsealed sleeve
- Inaccessible ECV with incorrectly fitted lever
- Open-ended isolation valve (connected to a live gas supply)
- Incorrect use of leisure point e.g. fitted within premises with a flued appliance connected
- Incorrect jointing of pipework using non approved methods, including corrugated stainless steel pipe
- Incorrectly positioned or damaged permanent equipotential bonding
- Pipework installed too close to electrical equipment
- Pipework capped and sealed with a non-metallic fitting
- Correctly and incorrectly positioned emergency / isolation control / valve fitted with the gas meter positioned internally
- Incorrect use of flexible connections
- Pipework contained within a duct impairing provision for fire / smoke separation
- Inaccessible union or compression fittings e.g. under floorboards
- Incorrectly sized pipework
- Unprotected pipework installed under screed floors
- Pipework with inadequate or incorrect support

The full range of warning labels and advisory notices and appropriate documentation for the recording of defects must 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
- Prepare the work site for installation by ensuring that all work areas are free from hazards and that all surfaces are prepared
- Assess the work location, plan out the pipework routes and the materials that are required
- Confirm the availability of all appropriate information required to complete the task
- Confirm the location of the new appliance points and that the ventilation requirements are satisfactory

- Identify appropriate input services and confirm they are suitable for the proposed installation
- Install the appliance points in the agreed location and complete all pipework installation as necessary
- Complete pipework connections to the appliance points
- Satisfactorily complete an air test on the installation
- Inspect a gas installation and identify any pipework installation defects
- As appropriate supply and fit the correct labels for leaving the installation un-commissioned

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 4 hours to complete DPWI1 and DPWI2.
The apprentice has 1 hour to complete DPWI3.