



**ACS.CENWAT  
SAFETY ASSESSMENT CRITERIA  
INITIAL & RE-ASSESSMENT.  
DOMESTIC  
NATURAL GAS AND LPG  
CENTRAL HEATING/HOT WATER BOILERS  
AND CIRCULATORS, COMBINATION  
BOILERS, STORAGE WATER HEATERS AND  
INSTANTANEOUS WATER HEATERS**

|               |                                    |
|---------------|------------------------------------|
| <b>CENWAT</b> | <b>INITIAL &amp; RE-ASSESSMENT</b> |
|---------------|------------------------------------|

## Introduction

Tests gas safety competence to install, exchange, commission, disconnect, service, repair and breakdown of domestic gas fired central heating/hot water boilers and circulators, combination boilers, storage water heaters and instantaneous water heaters of heat input  $\leq 70$  kW.

CBs may adopt Competence and Criteria numbering different to that given in this document.

CB documentation may adopt wording for criteria different to that used in this document, provided the meaning is unaffected.

## Appliance range

Open flue and balanced flue (natural draught and fan assisted) for all appliance types and flueless instantaneous water heaters including:

- Stirling engine micro-generation appliances.
- Appliances designed to be installed to BS6798 that are providing heating to swimming pools by means of an indirect heat exchanger.
- Two individually flued domestic room sealed boilers with individual ratings of 70 kW or less, but with aggregate inputs of over 70 kW in a domestic premises

This Assessment does not address certain LPG water heater models specifically designed for the LPG Sector.

## Pre-requisites

CCN1 (taken since April 2012) OR equivalent change over elements)

or

QCF or S/NVQ.

## Exclusions

Installation, servicing or repair of hot or cold water supplies to or from the appliance, cold water tanks, water taps to sinks/baths, showers, hot water cylinders, radiators, water valves, associated plumbing systems equipment, the penetration of building fabric, opening of voids, lifting of flooring, electricity.

Swimming pool boilers covered by HWB1.

## References and normative documents

Appliance MIs.

All relevant documents as listed in the Legislative, Normative & Informative Document List (LNIDL), Inc.:

- HSL56
- BS 6798
- BS 5546
- BS 7967
- GIUSP TB 021; TB013.
- TB143
- IGEM/UP/17

ACS.SMB. 003.ACDND identifies Normative Documents that should be held by ACs.

## Abbreviations

AC. Assessment Centre

I. Initial

MIs. Manufacturer's/manufacturers' instructions

OP. Operating pressure

Ref. Reference.

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| PERFORMANCE CRITERIA      |  | REF | I | R |
|---------------------------|--|-----|---|---|
| 1.                        | check appliance assembly complete and fit for use and purpose to MI's and Normative Documents  |     | ✓ | ✓ |
| 2.                        | isolate gas supply prior to work   |     | ✓ | ✓ |
| 3.                        | check the ventilation for the appliance is correct   |     | ✓ | ✓ |
| 4.                        | seal appliance correctly to room-sealed fanned draught chimney configuration   |     | ✓ |   |
| 5.                        | re-establish gas supply  |     | ✓ |   |
| 6.                        | check work carried out is gas tight  |     | ✓ |   |
| 7.                        | ensure appliance is correctly located, level and stable  |     | ✓ |   |
| 8.                        | dismantle and clean appliance operational gas safety components, e.g. burners, primary air ports, combustion chambers and flue ways (serviced and maintained), using appropriate cleaning methods and agents, to MIs |     | ✓ |   |
| 9.                        | <b>commission appliance:</b>   |     |   |   |
| (i)                       | purge of air   |     | ✓ | ✓ |
| (ii)                      | check OP/heat input at the appliance is correct  |     | ✓ | ✓ |
| (iii)                     | check burners flame picture, stability and ignition  |     | ✓ | ✓ |
| (iv)                      | check user controls are operating correctly  |     | ✓ | ✓ |
| (v)                       | check safety control devices are operating correctly   |     | ✓ | ✓ |
| (vi)                      | check temperature controls are operating correctly   |     | ✓ | ✓ |
| (vii)                     | select correct electronic flue gas analyser and connect correctly to sampling point  |     | ✓ |   |
| (viii)                    | measure combustion performance to MIs  |     | ✓ | ✓ |
| (ix)                      | adjust appliance to give correct temperature rise and output (using a combination boiler or instantaneous water heater)  |     | ✓ |   |
| 10.                       | check flues are sound and operating correctly to remove products of combustion   |     | ✓ | ✓ |
| 11.                       | recognise defects on gas safety components (see PPs clause 2 (iv))   |     | ✓ | ✓ |
| 12.                       | explain safe operation and use of appliance  |     | ✓ | ✓ |
| 13.                       | check air/gas ratio setting is correct   |     | ✓ |   |
| 14.                       | Identify unsuitable appliance use on Installation & components on CFS  |     | ✓ | ✓ |
| 15.                       | Identify gas safety faults on CFS  |     | ✓ | ✓ |
| 16.                       | Identify AR & ID Installations on CFS  |     | ✓ | ✓ |
| 17.                       | check work carried is gas tight  |     |   | ✓ |
| KNOWLEDGE & UNDERSTANDING |  | REF | I | R |
| 1.                        | identifying unsafe conditions, flue jointing and supports.   |     | ✓ | ✓ |
| 2.                        | diagnosing gas safety faults   |     | ✓ | ✓ |
| 3.                        | effect of ineffective appliance case seals and missing grommets in combustion area   |     | ✓ | ✓ |
| 4.                        | suitable and unsuitable appliance room/space locations   |     | ✓ |   |
| 5.                        | clearances- proximity of combustible materials – fire proofing of compartments   |     | ✓ |   |
| 6.                        | operation of mechanical and electrical gas safety control devices  |     | ✓ |   |
| 7.                        | condensate removal and disposal  |     | ✓ |   |
| 8.                        | principle of adjustment of air/gas ratio valves  |     | ✓ | ✓ |
| 9.                        | CO and combustion ratio checks using an ECGA when commissioning a condensing boiler incorporating air/gas ratio control valve technology   |     | ✓ | ✓ |
| 10.                       | 2 or more domestic central heating boilers fitted within a single space with an aggregate total in excess of 70kW  |     | ✓ |   |
| 11.                       | Specific requirements and air monitoring requirements when replacing an appliance on a shared Flue System  |     | ✓ | ✓ |
| 12.                       | The Chimney Notice plate requirements for CFS  |     | ✓ | ✓ |
| 13.                       | Inspection of "boxed in" CFS   |     | ✓ | ✓ |
| 14.                       | CO and combustion ratio checks using an ECGA when commissioning a condensing boiler incorporating air/gas ratio control valve technology   |     |   | ✓ |