

## Overview

This standard is about working with gas appliances in domestic settings. Appliances could be cookers, tumble driers or leisure appliances. Cookers can be freestanding, built in, slide under, hotplates, grilles, range cookers or dual fuel cookers. Although gas tumble driers are no longer available new they still need to be maintained and are also available second hand. Leisure Appliances can be greenhouse heaters, BBQ's, patio heaters, gas flambeaux, and outdoor gas lighting.

As well as servicing and repairing, this standard covers the work activities of installing and removing gas appliances including when required for new installations or when exchanging, replacing or repositioning gas appliances. It includes the disconnection, de-commissioning, testing and commissioning that is involved. It can apply to any type of fuel gas or combinations of fuel gas including, but not restricted to, natural gas, LPG, blended or 100% hydrogen.

This standard should be used in conjunction with:

- EUSDSG5 Prepare to work on gas systems or appliances in domestic settings; and
- EUSDSG15 Carry out gas tightness testing and check system safety in small settings

This standard is for gas engineers who work in domestic settings.

## Performance criteria

### *You must be able to:*

1. Make sure all required pre-work checks have been carried out prior to starting installation, service, repair or removal activities
2. Carry out all stages of the work in line with installation, maintenance or removal plans or activities
3. Carry out installation, service, repair, test and removal processes, routines and sequences in line with manufacturers' specification, recognised industry practices and standards, work standards, safety schemes and regulations
4. Check any appliances to be fitted are compatible with available fuel gas sources
5. Check that conditions within gas and electricity systems will permit safe de-commissioning and commissioning
6. Use designated safe isolation procedures and warning notices to prevent the unauthorised use of un-commissioned or de-commissioned gas appliances, gas systems, electrical systems and components
7. Use the correct tools, test equipment and other equipment for each stage of the work being carried out
8. Assemble gas and electricity system components to meet requirements of plans
9. Minimise damage to customer property and building features throughout all stages of the work
10. Confirm position of new, replacement or repositioned appliances meet location, siting and clearances required by manufacturers' instructions, industry standards' specification and building regulations
11. Confirm ventilation for new, replacement or repositioned appliance installations meet industry standards and manufacturers' instructions
12. Ensure existing systems are clean and free of debris
13. Fix and connect all relevant pipes and components to gas appliances in line with plans
14. Confirm the operation of condensate disposal systems in line with manufacturers' instructions
15. Use tightness testing and purging, safe isolation and electrical testing procedures to confirm the integrity of systems and appliances
16. Use industry standard checks and testing procedures to confirm the integrity of chimney systems and appliance flue seals
17. Check appliance operating pressure and gas rate meet industry standards and manufacturers' requirements
18. Use industry standard visual checks and flue gas combustion analysis with approved test equipment to confirm combustion performance
19. Check gas appliances function safely and operate in accordance with manufacturers' instructions
20. Check electrical systems and components function safely and operate in accordance with manufacturers' instructions
21. Complete and submit all relevant documentation and paperwork in line with industry standards and legislative requirements
22. Instruct property occupiers on the correct operation of appliances and systems and provide them with their copy of appliance literature
23. Resolve problems within own area of responsibility and competence in accordance with approved procedures

24. Advise of any delays to the work, unresolved problems, unsafe situations and required remedial actions to those who require the information

## Knowledge and understanding

### *You need to know and understand:*

- 1.Regulations and guidance governing health and safety in the workplace, environmental protection and the use of risk assessments including safe access and working at heights including building regulations, those relating to removing old appliances and substances hazardous to health
- 2.Legislation covering your general responsibilities for your own safety and that of others
- 3.The limits of your own skills, autonomy and responsibility in relation to fuel sources and work activities associated with the work
- 4.How to recognise the different types of fuel gas sources available in your area
- 5.Gas industry unsafe situations procedures and how to isolate unsafe gas appliances, gas systems and components
- 6.Potential hazards that could arise from all de-commissioning, installation, service, repair, removal and commissioning activities and checks to be carried out before work takes place
- 7.How to access and interpret normative documents, industry standards guidance documents, manufacturers' instructions, industry standards, safety schemes and regulations
- 8.Required pre-work checks including operating pressures and volumes,
- 9.Industry practices, work standards routines and sequences for installing, servicing, repairing, exchanging, replacing, repositioning, testing, connecting, removing, de-commissioning and recommissioning gas appliances and associated systems and components
- 10.Tests and checks to confirm the suitability of gas combustion performance including the use of approved flue gas analysers
- 11.Tests and checks to confirm the integrity, suitability, performance, operating pressure, gas rate and safe functioning of gas appliances including the use of test equipment
- 12.Tests and checks to confirm the integrity, suitability and performance of chimneys and ventilation systems
- 13.Procedures for checking gas appliance performance including pressure, flow rate and temperatures
- 14.How to measure and record installation and site details for prefabrication
- 15.How to confirm that services and system requirements are adequate for gas systems and components
- 16.Safe isolation methods, tests, and procedures for temporary and permanent de-commissioning of gas and electricity systems, components and appliances including use of temporary continuity bonds, non-contact voltage detectors, voltage indicators, proving units, multimeters
- 17.Measures to prevent un-commissioned and de-commissioned appliances or systems being brought into operation
- 18.Positioning and fixing requirements for gas appliances and associated systems and components
- 19.Methods of working which protect building décor, customer property and existing systems and components
- 20.Safe processes and procedures for applying tightness testing and purging, safe isolation and electrical testing to appliances, gas systems and components to ensure safe functioning
- 21.How to safely collect and dispose of system contents that may be hazardous to health or the environment
- 22.The steps to take when problems arise with work activities

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- 23. Job management structures and methods of reporting and recording job progress or problems delaying progress
- 24. How to complete documentation and records and which statutory body to submit it to including building regulation self certification
- 25. Appliance handover and demonstration procedures

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**Developed by** Energy & Utility Skills

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**Version Number** 3

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**Date Approved** 01 Jan 2022

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**Indicative Review Date** 01 Jan 2025

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**Validity** Current

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**Status** Original

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**Originating Organisation** Energy & Utility Skills

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**Original URN** EUSDSG3.1/3.2

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**Relevant Occupations** Domestic Gas Engineers

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**Suite** Downstream Domestic Gas Installation and Maintenance

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**Keywords** install, domestic, gas, cookers, tumble dryers, leisure appliances, installation, gas, energy, utility, utilities, maintain, maintenance, commission, decommission, replace, LPG, blended fuel, 100% hydrogen

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