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## Overview

This national occupational standard is for gas engineers who are required to maintain domestic gas cookers, tumble dryers and leisure appliances. This standard covers the work activities of planning, maintaining, de-commissioning and commissioning those appliances.

## Performance criteria

- You must be able to:*
- Plan and prepare work activities for maintaining domestic gas cookers, tumble dryers and leisure appliances
  - 1. Produce a risk assessment and method statement which incorporates safety provisions in the work site, access to the work site, movement of the workforce, members of the public, and the movement and safe storage of materials, tools and equipment for the job
  - 2. Survey the work site for any pre-maintenance damage or defects to existing building features and record it
  - 3. Advise the property occupier of any defects found and agree the planned work
  - 4. Protect the work site and the building fabric against possible damage being caused during the de-commissioning and maintenance process
  - 5. Check and confirm all materials, tools and equipment necessary for the de-commissioning, maintenance and commissioning process are available as required and are fit for purpose
  - 6. Check and confirm that the siting of the appliance meets the manufacturers' and industry standards' requirements for location, siting and clearances
  - 7. Confirm that the gas supply, electricity supply, the provision of ventilation and where required, the chimney suitability meet the appliance manufacturers' and industry standards' requirements for the installation
  - 8. Carry out all necessary checks and tests to confirm the services and systems meet the manufacturers' and industry requirements for the installation
  - 9. Check existing installation for any unsafe appliances and system components and apply the gas industry unsafe situations procedures as required
- De-commission domestic gas cookers, tumble dryers, and leisure appliances to industry standards and manufacturers' instructions
- 10. Check that conditions within the gas and electricity systems will permit safe de-commissioning
  - 11. Select and use the correct tools and equipment for de-commissioning activities
  - 12. Use designated safe isolation methods, tests, and procedures to de-commission gas and electricity systems and components
  - 13. Take precautionary actions to ensure that temporarily de-commissioned appliances, systems, or components do not present a safety hazard

14. Permanently remove and disconnect appliances, gas system components and electricity system components as required

Maintain domestic gas cookers, tumble dryers and leisure appliances to industry standards and manufacturers' instructions

15. Carry out preparatory work to meet the maintenance requirements set out in the plan

16. Remove existing gas and electricity system components as required by the maintenance activities

17. Carry out the maintenance process in accordance with manufacturers' specification and industry standards

18. Carry out the maintenance process minimising damage to customer property and building features

19. Select and use the correct tools and equipment for maintenance work activities

20. Re-position the appliance and confirm it meets the location, siting and clearances required by the manufacturers' and industry standards' specification

21. Confirm existing ventilation for appliances and system meets industry requirements for the installation

22. Ensure existing gas systems are clean and free of debris

23. Re-connect gas and electricity system components to the appliance

24. Use tightness testing and purging and electrical testing procedures to confirm the integrity of the re-connected system and appliance

25. Use industry standard checks and testing procedures to confirm the integrity of the existing chimney system and appliance flue seals where required

Pre-commission and Commission domestic gas cookers, tumble dryers and leisure appliances to industry standards and manufacturers' instructions

26. Confirm the complete appliance installation complies with the manufacturers' specification, industry standards, Gas Safety (Installation & Use) Regulations, British Standards and Building Regulations

27. Check that conditions within the gas and electricity systems will permit safe commissioning

28. Select and use the correct tools and equipment for commissioning activities

29. Check and confirm the gas system and appliance operating pressures and gas rate meet industry standards
30. Check the combustion performance visually and by flue gas analysis as required
31. Test chimney performance and reconfirm it performs according to manufacturers' and industry standards' requirements where required
32. Reconfirm that the ventilation requirements meet industry standards for the installation
33. Check and confirm the operation of the gas appliance and system and components function safely and operate in accordance with manufacturers' instructions
34. Instruct the property occupier on the correct operation of the appliance and gas system and provide them with their copy of the appliance literature
35. Take precautionary actions to prevent the unauthorised use of un-commissioned gas appliances, gas systems, electrical systems and components by isolation procedures and use of warning notices

Use and communicate data and information to carry out de-commissioning, maintenance and commissioning work

36. Liaise with the property occupier and other people who will be affected by the work during the planning, de-commissioning, installation, and commissioning processes to minimise disturbance to the job
37. Use normative documents, industry standards, British Standards and information from manufacturers' instructions for the appliance to ensure the work is done to the specification
38. Advise of any delays to the work, unsafe situations and required remedial actions to those who require the information
39. Check that the customer is satisfied with the finished job
40. Complete records and documentation confirming the safe maintenance of gas appliances, systems and components
41. Complete gas appliance and gas system commissioning and de-commissioning records as required and ensure they are stored securely

Resolve problems within own area of responsibility and competence which could affect the de-commissioning, maintenance and commissioning process

42. Rectify problems within own area of responsibility and competence and report deficiencies in gas and electric input services
43. Resolve problems in accordance with approved procedures where

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- a) pre-maintenance checks and tests reveal gas appliance, gas system or component defects
  - 44. b) gas appliances, gas systems and components being commissioned do not meet design requirements
  - 45. c) the gas system or component cannot be restored to full performance

## Knowledge and understanding

*You need to know and understand:* General Knowledge

1. Regulations and guidance governing health and safety in the workplace, environmental protection and the use of risk assessments
2. Legislation covering the general responsibilities of the operative for their own safety and that of others
3. The limits of your own autonomy and responsibility

De-commissioning, maintaining and commissioning domestic gas cookers, tumble dryers and leisure appliances

4. The health, safety and environmental factors which need to be incorporated in risk assessment for the domestic maintenance process
5. The methods of working which protect the building décor, customer property and existing systems and components
6. The care and maintenance requirements of tools and equipment, and checks for safe condition
7. The tools, equipment, materials and components required for the gas appliance and gas system de-commission, maintenance and commission – ordering, supplying, advising, checking and delivery procedures
8. How to safely secure and store tools, equipment, materials and components to minimise loss or wastage
9. The potential hazards that could arise from all de-commissioning, maintenance and commissioning activities and the checks to be carried out before work takes place
10. The steps to take should materials, components, tools and equipment not be available at the site to commence the de-commissioning, maintenance and commissioning activity
11. How to access and correctly interpret the required information, including normative documents, industry standards guidance documents, British Standards and manufacturers' instructions applicable to the appliance, to ensure the work is done to the specification and industry standards
12. How to confirm that the services and system requirements are adequate for existing gas appliances, systems, or components
13. Safe isolation methods, tests, and procedures to de-commission gas and electricity systems or components
14. The procedures for safe temporary and permanent de-commissioning of appliances and systems including use of temporary continuity bonds

15. Measures to prevent de-commissioned appliances or systems being brought into operation utilising safety and warning notices
16. The need to liaise with others whose procedures or routines may be affected by the suspension of the gas appliance and gas system operation
17. The points in the de-commissioning, maintenance and re-commissioning process where co-operation and liaison with other trades and property occupier may be required
18. The industry practices and work standards for fabricating and installing domestic gas cookers, tumble dryers, leisure appliances, gas systems and components to comply with the manufacturers' specification, industry standards, Gas Safety (Installation & Use) Regulations, British Standards and Building Regulations
19. The positioning and fixing requirements for domestic gas cookers, tumble dryers, leisure appliances, gas systems and components to comply with the manufacturers' specification, industry standards, Gas Safety (Installation & Use) Regulations, British Standards and Building Regulations
20. The procedures and work methods for connecting:
  - a) to input services including; gas, electric, ventilation and chimney systems
  - b) domestic gas cookers, tumble dryers, leisure appliances and components to both new and existing gas, electric, ventilation and chimney systems
21. The process and procedures, equipment and legislative requirements for applying tightness testing and purging and electrical testing to appliances, gas systems and components to ensure safe functioning
22. The routines and sequences for the maintenance process of domestic gas cookers, tumble dryers, leisure appliances, gas systems and components in accordance with manufacturers' specification and industry standards
23. The routines and sequences for re-commissioning domestic gas cookers, tumble dryers, leisure appliances, gas systems and components in accordance with manufacturers' specification and industry standards
24. The procedures for checking the correct operation and performance of domestic gas cookers, tumble dryers, leisure appliances, gas systems and components and checking against the design specification and to ensure safe functioning
25. The procedures for checking and confirming the gas system

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- operating pressures and appliance operating pressure and the gas rate
26. The tests, checks and use of flue gas analysers which confirm the suitability of the gas combustion performance
27. The tests and checks to confirm the integrity, suitability and performance of the chimney and ventilation system
28. How to complete all maintenance documentation and records to be left with the property occupier Measures to prevent un-commissioned gas appliances and gas systems being brought into operation utilising safety and warning notices
29. The system handover procedures and how to demonstrate the operation of replacement domestic gas cookers, tumble dryers, leisure appliances, gas systems and components to end users
30. The steps to take when problems arise in the work activities
31. Job management structures and methods of reporting and recording job progress or problems delaying progress
32. How to safely collect and dispose of system contents that may be hazardous to health or the environment
33. How to isolate unsafe gas appliances, gas systems and components and application of the gas industry unsafe situations procedure



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## Glossary

“Cookers” refers to Freestanding, Built In, Slide Under, Hotplates, Grilles, Range Cookers, and Dual Fuel Cookers

“Leisure Appliances” refers to Greenhouse Heaters, BBQ’s, Patio Heaters, Gas Flambeaux, and Outdoor Gas Lighting

“Work Site” refers to the area where the work will take place and all areas affected by the works

“Services and Systems” refers to water, central heating, gas, electricity supply, condensate disposal, chimneys and ventilation systems

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