

Technical Bulletin 044

Title: Flame-failure protection on new and previously used gas catering equipment

Date issued: 26 July 2016

Note: This version of Technical Bulletin (TB) 044 replaces the version originally published 12 April 2016 which is now withdrawn. This version has been reviewed and where appropriate revised to ensure that it remains both current and relevant.

This Technical Bulletin provides guidance to Gas Safe registered Businesses/engineers when requested to upgrade catering equipment by the retro-fitting flame-failure devices (FFDs) where appropriate

Introduction

There will be occasions when a Gas Safe registered business/engineer is called upon to provide advice to caterers when they encounter existing catering equipment during maintenance, service, or installation visits, which does not incorporate any flame failure protection, e.g. flame failure devices (FFDs).

An FFD is a control that detects the presence of a flame and in the absence of a flame, prevents the uncontrolled release of gas to the burner.

The Health and Safety Executive (HSE) in Great Britain (GB) published Catering Information Sheet (CAIS) No 23⁽¹⁾ in July 2013 which advises catering equipment owners and operators on the need to ensure gas catering equipment which is under their control is safe. Part of the information given in CAIS23⁽¹⁾ specifies the need to retrofit suitable flame failure protection. This information sheet can be downloaded from the following web address: <http://www.hse.gov.uk/pubns/cais23.pdf> (see **Note 1**).

Note 1: *Although CAIS23⁽¹⁾ applies in GB, similar requirements apply in other geographical areas covered by Gas Safe Register. For details of current gas safety legislation, building legislation and industry standards for the geographical areas covered by Gas Safe Register, see the [Legislative, Normative & Informative Document List \(LNIDL\)](#)⁽²⁾ at: <https://www.gassaferegister.co.uk/sign-in/> - login and visit the Technical Information area.*

Requirements of Industry Standards

BS 6173⁽³⁾ – in its Commentary to Cause 14 – *Maintenance of gas-fired appliances* – states: “Many older appliances are not fitted with safeguards that are currently required, e.g. flame supervision devices, water failure systems, steam safety systems or mechanical protection systems. Alternative components can only be used if so specified by the appliance manufacturer.”

Background

There remains a significant population of gas catering equipment with enclosed burners e.g. ovens, etc., that do not comply with current gas safety standards or in the United Kingdom, the Gas Appliance (Safety) Regulations 1995 (GA(S)R) (e.g. non-CE marked) (See [Note 2](#)).

Note 2: *Similar legislative requirements apply in other geographical areas covered by Gas Safe Register. For details of current gas safety legislation, building legislation and industry standards for the geographical areas covered by Gas Safe Register, see [Technical Bulletin \(TB\) 999^{\(2\)}](#) at: <https://www.gassaferegister.co.uk/sign-in/> - login and visit the Technical Information area.*

Particular concerns have been identified in relation to Asian ‘duck’ and ‘tandoor’ ovens, however, other catering equipment such as ‘hog roasters’ and other cooking appliances may be similarly in need of flame failure protection. The hazards that can arise from the use of non-compliant equipment include possible gas explosions and carbon monoxide (CO) poisoning.

Guidance to registered engineers

It is important to bear in mind the following:

1. The need to advise equipment owners/operators to replace or upgrade catering equipment where no flame failure protection exists.
2. The ad hoc retro-fitting of FFDs to CE marked gas-fired appliances that is not done in accordance with the equipment manufacturers instructions may be regarded as a contravention of current gas safety legislation in GB – the Gas Safety (Installation and Use) Regulations (GSIUR) in particular, Regulation 26(7) of GSIUR (see [Notes 2 and 3](#)).

Note 3: *CE marking is a declaration by the manufacturer that the product meets all the appropriate provisions of the relevant legislation implementing certain European Directives. CE marking gives companies easier access into the European market to sell their products without adaptation or rechecking. The initials ‘CE’ do not stand for any specific words but are a declaration by the manufacturer that the product meets the requirements of the applicable European Directive(s). For further guidance on the requirements of CE marking go to: www.gov.uk/guidance/ce-marking*

3. In the case of **directly imported equipment** which is already installed, such as Asian ‘duck’ or ‘tandoor’ ovens, there may not be any CE certification and therefore retro-fitting FFDs may **not** constitute a contravention of Regulation 26(7) of GSIUR (see also [Note 2](#)). Competent Gas Safe registered businesses/engineers may retro-fit FFD components/kits which are themselves CE marked and supplied with installation instructions, in order to improve the overall safety performance of existing equipment. Wherever possible CE marked and approved kits from the kit manufacturer or appliance distributor should be used.
4. Registered engineers should not install new or second-hand appliances for which there are no manufacturer’s instructions as it will not be possible to comply with Regulations 29 and 33(1) of GSIUR in respect to the testing of appliances (see also [Note 2](#)).
5. New appliances must comply with the requirements of the GA(S)R which states; *“Appliances must be so constructed that gas release during ignition and re-ignition and after flame extinction is limited in order to avoid a dangerous accumulation of unburned gas in the appliance”*; therefore, a new appliance that does not feature such equipment should not be installed..
6. Older second hand appliances may not be fitted with FFD components, however, in order to be installed, ovens and similar enclosed burner equipment, such as steamers, shall be provided with flame supervision devices and appropriately upgraded gas controls. Upgrading of safety controls shall only be carried out using the appliance manufacturer’s instructions and parts. Where reasonably practicable, all burners shall be fitted with flame supervision devices. Where an appliance is not fitted with a flame supervision device(s) then an option would be for the gas supply to be fitted with a

proving system to prove the closure of all valves prior to the establishment or restoration of the gas supply

7. The equipment owners/operators should also be advised that the requirements of the 'Provision and Use of Work Equipment Regulations 1998' (PUWER) may also apply. For further information visit: <http://www.hse.gov.uk/pubns/indg291.pdf>

Note 4: The GA(S)R, prohibit the supply of gas cooking appliances which do not comply either with the requirements specified in the Regulations, or with the safety requirements required of industry standards such as European/British Standards (as appropriate) (see also **Note 2**).

Note 5: See **TB 051** for guidance concerning the ventilation requirements of catering establishments. **TB 051** can be viewed at <https://www.gassaferegister.co.uk/sign-in/> – login and visit the Technical information area.

Note 6: For general information about the process behind the development of Gas Safe Register Technical Bulletins and the expectations for all Stakeholders, see **TB 1000**⁽⁴⁾ at: <https://www.gassaferegister.co.uk/sign-in/> - login and visit the Technical Information area.

Bibliography

(1) Catering Information Sheet No 23 – Gas Safety in catering and hospitality (CAIS23)

(2) LNIDL - Gas Safe Register Legislative, Normative & Informative Document List

(3) BS 6173: Specification for installation and maintenance of gas-fired catering appliances for use in all types of catering establishments (2nd and 3rd family gases)

(4) TB 1000 - An introduction to Gas Safe Register Technical Bulletins

Note: Gas Safe Register Technical Bulletins and the Legislative, Normative & Informative Document List can be viewed at: <https://www.gassaferegister.co.uk/sign-in/> - login and visit the Technical Information area.

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