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Domestic gas installations — Recommendations for safety

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National foreword

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pour la sécurité

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die Sicherheit

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European foreword

This document (CEN/TR 16940:2016) has been prepared by CEN/SFG_I/SFG_U JWG “Safety of domestic gas installations”, the secretariat of which is held by AFNOR/BNG.

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Introduction

As a result of the liberalization of the gas and services market in Europe and the need to reduce potential barriers to trade, the development of mutually recognized standards covering design, installation, inspection and maintenance of pipework and appliances downstream of the point of delivery, including the development of a competence assessment scheme for gas operatives and companies engaged in this sector is considered important.

The quality and safety of the gas installations are generally ensured through competent operatives, installers and inspectors complying with technical regulations, inspection and maintenance regimes, safety inspection of work.

To assist and facilitate the movement of operatives between states, a mutual recognition framework/matrix that is agreed by all Member States can be envisaged. This should be designed and developed to help Member States and those operatives wishing to relocate, to be able to benchmark their respective knowledge, experience and qualifications against the requirements of the Host State. In particular, the mutual recognition framework is described in the recommendations at the end of this document.

1 Scope

This Technical Report gives recommendations to ensure the quality and safety of domestic gas installations. This Technical Report covers pipe work, appliances installation, their combustion air supply and flue products exhaust commissioning, inspection and maintenance activities carried out by operatives.

This document addresses the following three main factors, which have an influence on gas safety in general:

- a) quality and safety of components of gas installations and gas appliances,
- b) quality of the work when gas installations are constructed and commissioned,
- c) inspection and maintenance of installations and gas appliances.

Potential ways in which individual competence of operatives and/or businesses can be ensured and mutually recognized between Member States are considered.

The means of assuring responsible behaviour of consumers is not covered in this document.

It does not address metering or non-domestic (industrial and commercial) installations.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TR 1749, *European scheme for the classification of gas appliances according to the method of evacuation of the combustion products (types)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

(From CEN Guide 14)

(From Marcogaz National Competency Framework)

3.1

inspection

checking or testing of an installation, by duly competent operatives, against established parameters (which may relate to emission limits), its performance and its conformance to safety requirements (checking the actual condition against a target condition), followed by the supply of a written report confirming either compliance with all test parameters or detailing identified deficiencies (where these are deemed so significant as to warrant such action)

3.2

maintenance

performance of preventative examinations, checks, cleaning, adjustment and repairs necessary to maintain target conditions, and the remedying of deficiencies identified during inspection by duly competent operatives, re-establishing target conditions as necessary

4 Assuring the quality of installation and service work

Domestic gas installations offer safe, efficient and user-friendly comfort to end-users provided they are designed and installed by competent operatives, together with adequate maintenance and regular inspection.

The competencies needed are given in 7.2; how to assess them in dealt with is given in 8.1 and 8.2.

In order to ensure quality and safety of gas installations, the following elements shall be considered:

- technical requirements for pipe work;
- technical requirements for appliance installations, including combustion air supply, ventilation and flue products exhaust;
- prescriptions for inspection and maintenance of installations and appliances;
- if applicable, prescriptions for third party safety inspection of new and existing installations;

NOTE Safety inspection will often be incorporated into a maintenance specification, but may be offered as a separate service, which can be compulsory, in the interests of assuring adequate safety performance of an appliance/installation at an economic cost.

- assuring competence of operatives.

There is considerable variation, across Member States, with regards to the manner in which these elements are provided for. Each of these elements are considered, in order to provide a basis for a European best practice for minimum safety requirements.

Technical standards may be complemented by more detailed national standards, which should be applied in association with European Standards, but will not conflict with them. There may also be additional requirements in national legislation / regulations, particularly those relating to the construction of services within buildings, which shall take precedence.

5 General technical requirements for pipework

General technical requirements for pipework, so as to achieve a consistent basis for the safe and efficient installation of gas pipework in domestic premises, are given in EN 1775.

EN 1775 covers principles of gas supply systems.

This functional standard specifies the common appropriate principles and the recognized practices concerning:

- design;

It is emphasized that gas pipework shall be sized so that the pressure at the inlet of all gas appliances is compatible with their safe and effective operation.

- installation and construction;
- testing;
- commissioning;
- operation and maintenance;
- working on operating pipe.