# Informative translation of Executive Order on safety of gas equipment<sup>1</sup>

(Bekendtgørelse nr. 239 af 23. Marts 2018)

This is a translation of the Executive Order on safety of gas equipment.

In any case of misinterpretation

between the translated version and the Danish version, the Danish version has legal force.

The following provisions are laid down in accordance with § 5, paragraph 1(3); § 5, paragraphs 2 and 4; § 8, paragraph 3; § 26, paragraph 1; § 28; and § 31, paragraph 2 of Act No 61 of 30 January 2018 on the safety of gas plants, installations, and equipment (the Gas Safety Act):

## Chapter 1

# Scope and definitions Scope

- § 1. The order imposes safety requirements on gas equipment not covered by Regulation (EU) 2016/426 of the European Parliament and of the Council of 9 March 2016 on appliances burning gaseous fuels and repealing Directive 2009/142/EC or Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC.
- § 2. The order implements Regulation (EU) 2016/426 of the European Parliament and of the Council of 9 March 2016 on appliances burning gaseous fuels and repealing Directive 2009/142/EC (see §§ 39-45).
- § 3. Application of this order is subject to Regulation (EC) No 764/2008 of the European Parliament and of the Council of 9 July 2008 laying down procedures relating to the application of certain national technical rules to products lawfully marketed in another Member State and repealing Decision No 3052/95/EC.

Rev. 0, June 2018 Page 1 of 10

<sup>&</sup>lt;sup>1</sup> This executive order has been notified as a draft in accordance with Directive (EU) 2015/1535 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (codification). The Order incorporates certain provisions of Regulation (EU) 2016/426 of the European Parliament and of the Council of 9 March 2016 on appliances burning gaseous fuels and repealing Directive 2009/142/EC (OJ L 81, 31.3.2016, p. 99). According to Article 288 of the Treaty on the Functioning of the European Union, a Regulation applies immediately in every Member State. The reproduction of these provisions in the Order is therefore exclusively for practical reasons and does not affect the immediate application of the regulations in Denmark.

## **Definitions**

- § 4. For the purposes of this order, the terms below shall have the following meanings:
- 1) Gas equipment: equipment of any kind that is included in or intended to be included in gas plants or gas installations, including gas appliances, fittings, etc.
- 2) Appliance: gas-consuming appliance or burner system, including hand tools, weed burners, and gas engines and gas turbines.
- 3) Fitting: safety components, regulators, membranes, gas hoses, sealing materials and spare parts for replacement in appliances etc., intended for use in a gas installation.
- 4) Gas Appliance Regulation: Regulation (EU) 2016/426 of the European Parliament and of the Council of 9 March 2016 on appliances burning gaseous fuels and repealing Directive 2009/142/EC.
- 5) Manufacturer: any natural or legal person who manufactures gas equipment or who has gas equipment designed or manufactured and markets that gas equipment under their own name or trademark or uses the gas equipment for their own purposes.
- 6) Normal use: the gas equipment is correctly installed and regularly maintained in accordance with the manufacturer's instructions, it is used under normal variations in the gas quality and normal fluctuations in the supply pressure as set out in the Executive Order on gas qualities, and it is used in accordance with its intended purpose or in a way which can be reasonably foreseen.
- 7) Supply pressure: gas pressure immediately upstream of the gas-consuming appliance or its regulator.
- 8) Appliance category: gas group within gas families (see the Executive Order on gas qualities) for which the appliance can be used.
- 9) Auxiliary energy: energy supplied to gas equipment to start, regulate or assist operation of the gas equipment, including electricity, compressed air, steam, gas, etc.

### Chapter 2

#### Compliance with safety requirements in the Gas Safety Act

- § 5. The safety requirement in § 4 of the Gas Safety Act (see §§ 7-9 of this executive order) is considered complied with if the gas equipment is in compliance with gas equipment standards that are harmonised under the Gas Appliance Regulation.
- Paragraph 2. The standards used in accordance with paragraph 1 shall address all safety risks identified in relation to the gas equipment.
- Paragraph 3. If harmonised standards are not applied, or do not address all identified safety risks or are only partially applied, it shall be documented (see § 38, paragraph 2) that the safety requirements in §§ 7-32 and the safety requirement in § 4 of the Gas Safety Act are complied with.
- § 6. The standards to which this order refers are not entered in Lovtidende, but can be purchased at Danish Standards or can be read in hard copy at the Danish Safety Technology Authority.
  - Stk. 2. Standards (see paragraph 1) apply even if they are not available in Danish.

# Chapter 3

#### General safety requirements

§ 7. Gas equipment shall only be marketed, handed over, installed and put into service if:

Rev. 0, June 2018 Page 2 of 10

- 1) it is intended for the gas qualities and pressures used in Denmark (see the Executive Order on gas qualities);
- 2) it can be installed and adjusted according to the Executive Order on the safety of gas installations or the Executive Order on the safety of gas plants;
- 3) the appliance is supplied with warning label(s), installation instructions and instruction manual in Danish (see § 13), or if the fitting is supplied with instructions for incorporation of the fitting, assembly, adjustment, operating and maintenance instructions in Danish; and
- 4) it is clearly stated that the gas equipment can be used with gas (see §§ 36 and 37).

  Paragraph 2. Hoses and hose assemblies for gas installations are subject to Annex 1.
- § 8. All gas equipment materials, including gasket/sealing materials and membranes, shall be capable of withstanding the influence of the gas quality used and the pressure and tension to which the gas equipment is exposed.
- § 9. Gas circuits in the gas equipment shall under all conditions be gas-tight in relation to the surroundings.

Paragraph 2. Gas equipment with a shut-off function shall ensure the internal gas-tightness of the gas equipment.

## Chapter 4

## Essential safety requirements

§ 10. Appliances shall be designed and constructed such that they are safe and present no danger to persons, domestic animals or property during normal use.

*Paragraph 2.* Fittings shall be designed and constructed such that they function properly when used as intended.

§ 11. The manufacturer shall perform a risk assessment in order to identify the risks associated with the manufacturer's gas equipment. The gas equipment shall subsequently be designed and constructed with the risk assessment taken into account.

*Paragraph 2.* In choosing the most suitable solutions, the manufacturer shall apply the following principles in the following sequence:

- 1) Insofar as possible, eliminate or reduce risks by integrating safety into the design and construction of the gas equipment.
- 2) Take the necessary precautionary measures in relation to risks that cannot be eliminated.
- 3) Inform users of the residual risks due to any shortcomings of the precautionary measures adopted and indicate whether any particular precautions are required.
- § 12. In the design and manufacture of an appliance and drafting of the instructions, the manufacturer shall take into account the intended use of the appliance and the uses of the appliance that are reasonably foreseeable.

Instructions and warning labels

§ 13. An appliance shall:

Rev. 0, June 2018 Page 3 of 10

- 1) be accompanied by installation instructions for the installer (see § 14);
- 2) be accompanied by operating and maintenance instructions for the user (see § 15); and
- 3) bear the relevant warnings, which shall also appear on the packaging (see § 16).
  - § 14. The installation instructions for the installer shall contain:
- 1) all installation, adjustment and maintenance instructions required to ensure that those operations are correctly performed and that the appliance may be used safely; and
- 2) information on the technical specifications of the interface between the appliance and its installation environment so that the appliance can be correctly connected to the gas supply, auxiliary energy supply, supply of combustion air and the flue gas exhaust system.
  - § 15. The operating and maintenance instructions for the user shall contain:
- 1) all necessary information for safe use and information on any restrictions on use;
- 2) information on cases in which there is a need for additional maintenance or where it is advisable that the task be performed by an authorised company; and
- 3) all necessary information on the fitting's adjustment, operation and maintenance as part of the finished appliance.
- § 16. The warnings on the appliance and its packaging shall clearly state the type of gas to be used, the supply pressure, the appliance category and any restrictions on use, including restrictions requiring the appliance only to be installed in sufficiently ventilated areas to minimise the risks associated with the appliance.

#### Materials

§ 17. Gas equipment and materials for gas equipment shall be appropriate for their intended purpose and shall be capable of withstanding the mechanical, chemical and thermal stresses to which they will normally be subjected.

## Design and manufacture

- § 18. Appliance requirements that follow from §§ 19-32 shall also apply to fittings, as far as relevant.
- § 19. Appliances shall be designed and manufactured such that, when used normally, no instability, distortion, deformation, breakage or wear occurs that would impair safety.
  - § 20. Condensation produced at start-up or during operation shall not impair the safety of the appliance.
  - § 21. Appliances shall be designed and constructed such that:
- 1) the risk of explosion in the event of a fire of external origin is minimised as far as possible;
- 2) water penetration and unintended air penetration into the gas circuit do not occur;
- 3) any gas-related risks due to hazards of electrical origin are obviated;
- 4) any gas-related risks due to hazards originating from electromagnetic phenomena are obviated;
- 5) failure of a safety, controlling or adjustment device shall not pose a safety risk;
- 6) they continue to operate safely in the event of normal fluctuations in the supply of auxiliary energy;
- 7) all pressurised parts of an appliance can withstand the mechanical and thermal stresses to which they are subjected without deforming to a degree that may affect safety; and

Rev. 0, June 2018 Page 4 of 10

- 8) abnormal fluctuations or failures of auxiliary energy or its restoration shall not pose a risk.
- § 22. If an appliance is equipped with safety and adjustment devices, the functioning of the safety devices may not be overruled by the adjustment devices.
- § 23. Levers and other controlling and adjustment devices shall be clearly marked and provide the instructions necessary to prevent errors in operation and use. They shall be designed so as to prevent unintended activation.
- § 24. All parts of appliances which are fitted or adjusted during manufacture and which are not to be altered by the user or installer shall be appropriately protected.

## Unburned gas release

- § 25. Appliances shall be designed and constructed such that:
- 1) gas release at any time during operation is so limited that a dangerous accumulation of unburned gas in the appliance is prevented;
- 2) the release of unburned gas, which can lead to a dangerous concentration of the gas, is prevented if the appliance is intended for indoor use; and
- 3) appliances which burn gas that contains carbon monoxide or other toxic substances cannot pose a risk to persons and domestic animals.

## Ignition

§ 26. Appliances shall be so designed and manufactured that, when used normally, ignition and reignition is smooth and cross-lighting is assured.

### Combustion

- § 27. Appliances shall be designed and manufactured such that:
- 1) when used normally, flame stability is assured and combustion products do not contain unacceptable concentrations of substances harmful to health;
- 2) when used normally, there will be no accidental release of combustion products;
- 3) there is no release of combustion products in a dangerous quantity into the indoor spaces or premises concerned, if the appliance is connected to a flue for the dispersal of combustion products; and
- 4) when used normally, they do not cause concentrations of carbon monoxide or other substances harmful to health that could pose a risk to the health of persons or domestic animals.

# Rational use of energy

§ 28. Appliances shall be designed and manufactured such that energy is used rationally, reflecting the state of the art and taking into account safety aspects.

## Temperature

§ 29. Parts of appliances which are intended to be installed or placed in close proximity to surfaces shall not reach temperatures which constitute a danger.

Rev. 0, June 2018 Page 5 of 10

- § 30. The surface temperature of appliance parts that are intended to be handled in normal use shall not become so hot as to constitute a danger to the user.
- § 31. The surface temperatures of external parts of appliances, with the exception of surfaces or parts which are to transfer heat, shall not during operation pose a health and safety risk to persons exposed to them, in particular not for children and the elderly, for whom a reaction time must be taken into account.

## Contact with food and water

§ 32. Materials and parts used in the manufacture of an appliance and which may come into contact with food or drinking water shall not impair the quality thereof.

#### Chapter 5

# Manufacturer obligations

§ 33. When the manufacturer is not located in Denmark, the party who imports the gas equipment into Denmark is regarded as the manufacturer and is subject to the same obligations as the manufacturer (see §§ 34-38).

Paragraph 2. A party who modifies gas equipment already placed on the market in Denmark in a way that may affect compliance with the requirements of this executive order shall be regarded as the manufacturer and be subject to the same obligations as the manufacturer (see §§ 34-38).

## Testing and safety management systems

§ 34. The manufacturer shall examine the technical design and assess the suitability of the gas equipment and ensure that the design meets the safety requirements in Chapters 3 and 4.

Paragraph 2. The manufacturer shall test the functionality of the gas equipment and ensure that it meets the safety requirements in Chapters 3 and 4.

Paragraph 3. The manufacturer shall be able to document completed examinations and tests (see paragraphs 1 and 2). The manufacturer shall be able to make the documentation available to the Danish Safety Technology Authority, or party authorised under § 24 of the Gas Safety Act, for 10 years after the gas equipment has been placed on the market.

Paragraph 4. Examinations and tests (see paragraphs 1-3) may be performed and documented by parties other than the manufacturer.

§ 35. The manufacturer's management system shall, on an ongoing basis, ensure that the gas equipment meets the safety requirements in Chapters 3 and 4.

Paragraph 2. The frequency of the activities under the management system is established by the manufacturer and depends on the complexity of the gas equipment and the number of units manufactured.

Paragraph 3. The manufacturer shall be able to document the activities performed under the management system (see paragraphs 1 and 2). The manufacturer shall be able to make the documentation available to the Danish Safety Technology Authority, or party authorised under § 24 of the Gas Safety Act, for 10 years after the gas equipment has been placed on the market.

Paragraph 4. The activities of the A management system (see paragraphs 1-3) may be performed and documented by parties other than the manufacturer.

## Traceability and labelling

Rev. 0, June 2018 Page 6 of 10

§ 36. The manufacturer shall ensure traceability by applying to the gas equipment a type, lot or serial number or other form for identifier that uniquely identifies the gas equipment.

Paragraph 2. If the production date is used as the gas equipment's unique identifier, the production date shall be earlier than the sales date.

- § 37. The manufacturer shall apply the following information to the gas equipment:
- 1) manufacturer's name or trademark
- 2) contact information for the manufacturer
- 3) the gas equipment's field of application, gas category, gas pressure and supply pressure, where relevant
- 4) relevant information on the installation and use of the gas equipment.

Paragraph 2. The information (see paragraph 1) shall appear on the gas equipment's packaging or an accompanying document if, due to the size or nature of the gas equipment, it is not possible to apply the information on the gas equipment itself.

#### **Documentation**

- § 38. As documentation of compliance with the safety requirement in § 4 of the Gas Safety Act, the manufacturer shall ensure that the following can be made available to the Danish Safety Technology Authority:
- 1) information on the entity that manufactured the gas equipment
- 2) description of the gas equipment, which also uniquely identifies it by indicating the type designation, production number, serial number or similar
- 3) general description of the gas equipment
- 4) risk assessment (see § 11)
- 5) documentation for completed examinations and tests (see § 34, paragraph 3)
- 6) documentation for activities performed under the management system (see § 35, paragraph 3).

Paragraph 2. If harmonised gas equipment standards are not used (see § 5, paragraph 1) or only partly used, parties manufacturing gas equipment and those importing gas equipment into Denmark shall, in addition to the content in paragraph 1, ensure that the following documentation can be made available to the Danish Safety Technology Authority:

- 1) conceptual design and manufacturing drawings
- 2) descriptions and explanations necessary to understand the documentation under paragraph 2(1), and a description of how the gas equipment works
- 3) description of solutions chosen to meet the requirements in Chapters 3 and 4
- 4) a risk assessment that describes what dangers may arise when storing, transporting, installing, commissioning and operating the gas equipment, both when it is used as instructed and in normal use, and how it is ensured that the safety requirements in Chapters 3–4 are observed, so that the gas equipment is safe throughout its lifespan.

#### Chapter 6

## Notifying bodies designated under the Gas Appliance Regulation

§ 39. The Danish Safety Technology Authority designates notified bodies (see Article 20, paragraph 1 of the Gas Appliance Regulation) to carry out conformity assessments of appliances and fittings that are subject to the Gas Appliance Regulation (see Article 2(1) and (2) of said regulation).

Rev. 0, June 2018 Page 7 of 10

- § 40. A conformity assessment body shall be accredited by DANAK the Danish Accreditation and Metrology Fund for the conformity assessment modules that the body wishes to carry out (see Article 20, paragraph 2 of the Gas Appliance Regulation).
- § 41. An application for designation shall be accompanied by an accreditation certificate issued by DANAK certifying that the conformity assessment body meets the requirements in Article 23 of the Gas Appliance Regulation.

Paragraph 2. Assessment of conformity assessment bodies and supervision of notified bodies (see Article 20, paragraph 1 of the Gas Appliance Regulation) is carried out by DANAK.

# Chapter 7

Language requirements for gas equipment subject to the Gas Appliance Regulation

§ 42. Manufacturers shall ensure that instructions and safety information accompanying an appliance (see Article 7, paragraph 7, first subparagraph of the Gas Appliance Regulation) are in Danish.

Paragraph 2. Manufacturers shall ensure that the EU declaration of conformity which accompanies a fitting (see Article 7, paragraph 7, second subparagraph of the Gas Appliance Regulation) is in Danish or English.

§ 43. Importers shall ensure that instructions and safety information accompanying an appliance (see Article 9, paragraph 4, first subparagraph of the Gas Appliance Regulation) are in Danish.

Paragraph 2. Importers shall ensure that the EU declaration of conformity which accompanies a fitting (see Article 9, paragraph 4, second subparagraph of the Gas Appliance Regulation) is in Danish or English.

§ 44. Distributors shall ensure that instructions and safety information accompanying an appliance (see 10, paragraph 2, first subparagraph of the Gas Appliance Regulation) are in Danish.

Paragraph 2. Distributors shall ensure that the EU declaration of conformity which accompanies a fitting (see Article 10, paragraph 2, second subparagraph of the Gas Appliance Regulation) is in Danish or English.

§ 45. The declaration of conformity (see Article 15, paragraphs 2 and 3 of the Gas Appliance Regulation) shall be in either Danish or English.

# Chapter 8

#### Administrative provisions

§ 46. Communication in writing to the Danish Safety Technology Authority shall take place digitally.

# Chapter 9

#### **Penalties**

§ 47. Unless more severe penalties are stipulated under other legislation, penalties will be imposed on those who violate §§ 7-17, §§ 19-32 or §§ 36-38.

Rev. 0, June 2018 Page 8 of 10

§ 48. Entities, etc. (legal persons) may be made criminally liable in accordance with the regulations in Chapter 5 of the Penal Code.

# Chapter 9

# Entry into force and transitional provisions

§ 49. The executive order enters into force on 21 April 2018.

*Paragraph 2.* Executive Order No 1243 of 14 October 2016 on the designation of bodies for the conformity assessment of gas appliances is repealed.

§ 50. Gas equipment that prior to entry into force of this executive order (see § 49) has been type-approved by the Danish Institute of Fire and Security Technology under the Danish gas regulations and which bears a DG marking, may be made available on the market, provided that the documentation for the type approval is available.

Paragraph 2. The type approval certificate together with the test report constitutes documentation.

Rev. 0, June 2018 Page 9 of 10

# **ANNEX 1**

Hose type	Permitted	Internal dimension	Approved assembly	Colour
	pressure		method	
Low pressure (LPG gas)	Up to 100 mbar	10-11 millimetres*	DS-24 nipple or ¼" LH factory mounted	Orange
			threaded connection	
Medium	Up to 4 bar	6-7 millimetres	3/8" LH factory mounted	Orange
pressure			threaded connection	
(LPG gas)				
High pressure	Up to 16 bar	6-7 millimetres	W22 X 1"/22 factory	Orange
(LPG gas)			mounted threaded	
			connection;	
			or	
			W21,8 X 1"/14 factory	
			mounted threaded	
			connection	
Cooker hose	Up to 100 mbar	-	Factory mounted	No
			connection (hose	requirements
			connector or coupling)	
Flexible steel	According to	-	Factory mounted	No
hoses	manufacturer's		connection (hose	requirements
	instructions		connector, coupling or	
			flange)	
Unreinforced	Up to 30 mbar	10-11 millimetres	DS-24 nipple	Black
hoses for				
laboratory use				

<sup>\*</sup> Hoses with an internal dimension of 6-7 mm can be used, provided the length of the hose does not exceed 75 cm and the hose is supplied with a  $\frac{1}{4}$ " LH factory mounted threaded connection.

Rev. 0, June 2018 Page 10 of 10