

Appendix A1: Table of Regulations related to domestic natural gas systems

WP1 - Main findings from questionnaire on natural gas installation rules in various European countries

This table shows regulations and technical rules related to the installation of NG systems only. Documents related to the gas appliance directive 90/396/EEC are not given here.

Country	Regulator	Technical body	Key associations	Main regulations	Installation rules	Installation approval process	Remarks
Belgium	Federal Ministry of Economy and Energy	National standardization body NBN	The Belgian Gas Association (ARGB)		NBN D51-003, NBN D51-004, NBN B61-001, NBN B61-002.	<p>Installer without 'habilitation' label → inspection by recognized inspection service → declaration of conformity to natural gas grid operator → opening of meter</p> <p>Installer with 'habilitation' label → declaration of conformity to natural gas grid operator → opening of meter</p> <p>A voluntary quality label called 'habilitation' exists for installers</p> <p>After finishing the installation a declaration form is to be filled in by an 'habilitated' installer or a recognized inspection service stating that the installation is satisfying the regulation in force</p>	<p>It is inspection services (private?) that approve the installation or "habilitated" gas installers</p> <p>Conformity certificate delivered</p>
France	Ministère de l'industrie et des Finances – Bureau de la sécurité des équipements industriels (BSEI)		<p>Association française du gaz (AFG)</p> <p>Comité Français du Butane et du Propane (CFBP)</p>	<p>Arrêté du 2 août 1977 (version consolidée)</p> <p>Related to technical rules for combustible gaz and liquid fuel installations located inside residential buildings d'habitation ou de leurs dépendances / for heating power below 85 kW</p>	NF DTU 61.1: Installation of gas equipment in residential buildings	<p>If the installation is done by a non-professional, an accredited organisation (Qualigaz, Institut de Soudure, Bureau Veritas) shall control the installation and then deliver a certificate that proves that the installation complies with current rules</p> <p>If the installation is done by a professional (PGN/PGP accredited), the installer can deliver a compliance certificate himself. Any installation in collective housing should be performed by professionals</p> <p>Gaz equipment should be CE marked and have a NF gaz label</p>	<p>It is private accredited organisations that approve the installation or 'habilitated' gas installers</p> <p>Conformity certificate delivered</p>
Greece	Ministry of development	ELOT and a Technical Commission are responsible for the formulation and publication of national standards and their promotion and implementation in	DEPA (Gas corporation)	<p>Ministerial Decision A3/A/11346 (YA963-B-15-7-2003): Installation guidelines for natural gas systems with operating pressure up to 1 bar</p> <p>Ministerial Decision A3/A/22560 (YA1730-B-9-12-2005): Installation guidelines for natural gas systems with operating pressure up to 1 bar (supplementary)</p>	<p>Basic requirements of natural gas heating equipment installations:</p> <p>Presidential Decree II A334/1994 (adaptation of Hellenic Legislation to Directive 90/396/EOK) or Joint Ministerial Decision KYA16289/330/99 (conformity of the Hellenic</p>	<p>For a new installation or modifications to an existing installation, the consumer should submit to the Gas Corporation (DEPA, EPA, EDA) a technical report, prepared by a liable technician, that includes all equipment. The Gas Corporation should be notified when the work is being initiated while preserving the right to inspect during work. After the completion of the work, the consumer submits to the Gas Corporation the test certificate of resistance and impermeability for temporal natural gas supply for the adjustment of the equipment. The supervisor</p>	<p>It is the gas corporation that delivers installation approval</p> <p>Installation permit delivered when the installation work is completed</p>

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		the community (labelling certificates)			Legislation to the 97/23/EK Decree)	<p>should then edit the technical report of installation that includes:</p> <p>Description of the installation and drawings</p> <p>Compliance test and regulation certificates, adjustment certificates (pressure regulators, boilers)</p> <p>Operation and maintenance program for the whole installation</p> <p>Checking list for boilers or other consumption appliances (temperature, composition of exhaust gases, etc)</p> <p>The consumer should submit the technical report of installation to the Gas Corporation. The Gas Corporation inspects the installation to give the installation permit. The consumer is obligated to keep a file of the installation and all future modifications</p>	
Italy	Italian Ministry of the Economic Development	Italian National Body for Standardisation	Italy Gas Committee	<p>D.M. 24th November 1984 Fire prevention regulations for transport, delivery, storage and use of natural gas with specific gravity not greater than 0.8</p> <p>Law 5th March 1990, n.46 Regulations for the systems safety</p> <p>Decree of the Republic President 6th December 1991, n.447 Regulation for the accomplishment of the Law 5th March 1990, n.46 concerning the systems safety</p>	UNI-CIG 7129:2001 Gas plants for domestic use fed by network distribution. Design, installation and maintenance	Gas systems (piping, burners, etc) inside buildings for residential and commercial use, starting from the delivery point of fuel gas supplied by the distributor (typically downstream the main shut off valve), are subject to the installation compliance. The client/owner is bound to entrust the systems installation work to enterprises having the technical and professional requirements specified by law. The enterprise is bound to install the systems complying with the appropriate rules of good technology concerning safety as well as with existing technical legislation in this area. At the end of work the installation enterprise is also bound to issue a statement of compliance to the UNI and CEI standards. As regards fixed systems, it is mandatory that professionals putted on the register design the system and issue the test certificate at end of work	Fire services play a central role in approval process for any work upstream of the private gas meter Statement of compliance issued at the end of the installation work by professionals. Professionals are the only ones who can issue the statement of compliance
Netherlands		NEN		No specific regulation	The installation should be according to ATEX137	No approval process for installation natural gas installation at home	Confusion between product certification and installation rules
Poland		Polish Petroleum Mining and Gas Engineering Company	Oil and Gas Institute			<p>Office of Technical Inspections is obligated to control all new solutions and Polish Petroleum Mining and Gas Engineering Company gives permits through local companies to exploitation of installations</p> <p>Gas installation will need a permit from local Gas Company before start of exploitation</p>	
Spain	Ministerio de Industria, Turismo Y Comercio		Confederación Nacional de Asociaciones de Empresas de Fontanería, Gas, Calefacción Climatización, Protección contra Incendios,	<p>Real Decreto 1853/1993, de 22 de octubre, por el que se aprueba el Reglamento de instalaciones de gas en locales destinados a usos domésticos, colectivos o comerciales (To be countermanded in March 2007)</p> <p>Orden de 29 de marzo de 1974,</p>	Reglamento Técnico de Distribución y Utilización de Combustibles Gaseosos (To be mandatory from march 2007) In the annex 11 of these rules are included all the technical requirements which have to be taken into	For a maximum pressure operation up to 16 bar, all the gas installations in Spain (network, regulator boxers and domestic, industrial and commercial installations) have to be designed and installed as well as the main safety principles have to be designed according to the national regulation Reglamento Técnico de Distribución y Utilización de Combustibles Gaseosos. In annex 11 of these rules are all the technical requirements which have to be taken into account	

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			Electricidad y Afines (CONAIF)	<p>sobre Thermal installations inside buildings: Real Decreto 1751/1998, de 31 de julio, por el que se aprueba el Reglamento de Instalaciones Térmicas en los edificios (RITE) y sus instrucciones Técnicas Complementarias (ITE) y se crea la Comisión Asesora para las Instalaciones Térmicas de los Edificios</p> <p>Real Decreto 1218/2002, de 22 de noviembre, por el que se modifica el Real Decreto 1751/1998, de 31 de julio, por el que se aprobó el Reglamento de Instalaciones Térmicas en los Edificios y sus Instrucciones Técnicas Complementarias y se crea la Comisión Asesora para las Instalaciones Térmicas de los Edificios. normas básicas de instalaciones de gas en edificios habitados. (To be countermanded in March 2007)</p> <p>Real Decreto 919/2006, de 28 de julio, por el que se aprueba el Reglamento técnico de distribución y utilización de combustibles gaseosos y sus instrucciones técnicas complementarias ICG 01 a 11. (Reglamento Técnico de Distribución y Utilización de Combustibles Gaseosos) (To be mandatory from march 2007)</p>	<p>account</p> <p>Reglamento de Instalaciones Térmicas en los Edificios y sus Instrucciones Técnicas Complementarias y se crea la Comisión Asesora para las Instalaciones Térmicas de los Edificios</p>	<p>In the domestic, commercial or industrial buildings, the design and installations are performed by the installer, the supervision of the installation by the gas distribution company and, also, the commissioning of the installation by the government; all of these have to be according with the above-mentioned rules</p>	
UK	Health and Safety Executive (HSE)	British Standards Institute (BSI)		<p>The Gas Safety (Installation & Use) Regulations 1998 (as amended for the Isle of Man)</p> <p>Gas Safety (Installation and Use) Regulations – approved Code of Practice and Guidance</p>	<p>BS 5440 - Specification for installation of flues and ventilation for gas appliances of rated input not exceeding 700kw (net): 1st, 2nd and 3rd family gases. Part 1: Flues Part 2: Ventilation</p> <p>BS 5546 - Specification for</p>	No information given	

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					<p>installation of hot water supplies for domestic purpose using gas-fired appliances of rated input not exceeding 700kW (net)</p> <p>BS 5871 - Specification for installation of gas fires, convector heaters, fire/back boilers and decorative fuel effect gas appliances</p> <p>IGE/UP/1B Tightness testing and purging of domestic sized Natural gas installations</p>		
Germany	DVGW Chimney sweep		ZVSHK, DVGW, BGW, ZIV, ZDS, regional subsidy organisations	TRGI DVGW G600 Feuerungsverordnung, Kehr -und Überprüfungsordnung (technical regulation for gas installations) DIN 4705 Bemessung und Überprüfung von Abgasanlagen (technical rules for chimney) EneV, BimschV, TRWI (DIN 1988), ATV 251 (condensate), DVGW VP 113 (Chimney), G335, G336	All relevant standards became regulations	<p>Gas utility supplies piping to the house and the gas meter</p> <p>Planer gets the approval for chimney installation from chimney sweep</p> <p>Installer installs the appliance and supplies approval document to the gas utility</p> <p>Chimney sweep checks the flue gas installation</p> <p>Both gas utility and chimney sweep play a role in the approval process of a new natural gas installation. There is no quality label. Main safety constraints are related to flue gas installation (see TRGI)</p>	<p>Extensive experience available with natural gas fuel cell CHP (but not with hydrogen)</p> <p>The most likely approval process for hydrogen system would involve TÜV expertise and DIBT building regulations approval</p>