

<b>Gas Appliances Directive ( 90/396/EEC )</b>	
<b>GUIDANCE C 5</b>	<b>Approved by WG -GA</b>
	<b>06- 2003</b>

**Guideline related to:**

<b>ANNEX</b>	<b>II</b>	<b>Procedure for certification of conformity</b>
<b>Section</b>	<b>3 &amp; 4</b>	<b>EC declaration of conformity to type</b> (guarantee of production / product quality)
<b>Paragraph</b>	<b>3.3.3. &amp; 4.3.3.</b>	
<b>Subject</b>	<b>Examination and evaluation of the quality system</b>	

3.3.3. The notified body shall examine and evaluate the quality system to determine whether it satisfies the requirements referred to in point 3.3.2. It will presume conformity with these requirements in respect of quality systems that implement the corresponding harmonized standard.  
It must notify its decision to the manufacturer and inform the other notified bodies thereof. The notification to the manufacturer must contain the conclusions of the examination, the name and address of the notified body and the reasoned assessment decision in respect of the appliances concerned.

.....  
and

4.3.3. The notified body shall examine and evaluate the quality system to determine whether it satisfies the requirements referred to in point 4.3.2. It will presume conformity with these requirements in respect of quality systems that implement the corresponding harmonized standard. It must notify the manufacturer of its decision and inform the other notified bodies thereof. The notification to the manufacturer must contain the conclusions of the examination, the name and address of the notified body and the reasoned assessment decision for the appliances concerned.

**Question**

How should the examination and evaluation of the quality system for production of gas appliances and fittings be carried out?

**Discussion**

Both the manufacturer and the Notified Body have roles to play when preparing a quality system for a subsequent audit in application of the sections 3 and 4 of Annex II of the Gas Appliance Directive.

The professional judgement of the Notified Body and the expertise of the manufacturer must be recognised; it should also be emphasised that it is the manufacturer who must decide which module to choose, and the responsibility of the Notified Body to evaluate whether or not the manufacturer's quality system meets the requirements of the Gas Appliances Directive.

To determine if there are sufficient procedures and instructions in the quality assurance system, which on a continuous basis can assure compliance with the Essential Requirements of the Gas Appliance Directive, it is necessary to work out quality plans.

*This guidance is for information only; it has no formal status*

Reference: 90/396/EEC "Gas appliances directive" O.J. L 196, 26.07.90, p. 15

Source of guidance document: GADAC

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The quality plans must include testing of appliances or fittings.

In the material shown below, are given examples of tests, which often are necessary to assure conformity.

Nevertheless, manufacturers may expect to carry out additional tests on a sampling basis, e.g. EMC, Life Tests, Material Tests, etc. The matrix is therefore devised as a guide to the ongoing tests that are normally carried out on appliances/fittings to ensure continuous conformity with the Gas Appliances Directive.

### Quality plans for certification of gas appliances :

#### SUGGESTED TEST CRITERIA

TESTS	CENELEC STD HD 289/S1																						
	GAS SOUNDNESS	FLOW RATE (GAS)	BURNER IGNITION	BURNER AERATION (VISUAL APPEARANCE OF FLAME)	BURNER X LIGHTING	EARTH CONTINUITY	HIGH VOLTAGE	INSULATION RESISTANCE	FLAME SUPERVISION DEVICE	COMBUSTION	SURFACE TEMPERATURES	THERMOSTAT	PRESSURE LIMIT SWITCHES	FAN OPERATION	COMBUSTION CIRCUIT SOUNDNESS	FLUE GAS SPILLAGE	THERMAL DOWN DRAUGHT DIVERTER	CO2 DETECTION DEVICE VITIATION PILOT	WATER CIRCUIT SOUNDNESS	ELECTRIC CONTROLS (SAFETY)	TEMPERATURE LIMITS (SWITCHES)	EFFICIENCY	
APPLIANCES																							
COOKER	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	I/A	100%	N/A	N/A	N/A	N/A	I/A	100%	N/A	S	S
C.H. BOILER	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	100%	100%	S	S	S	S	100%	100%	S	S	S
INSTANTANEOUS WATER HEATER	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	100%	100%	S	S	S	S	100%	100%	S	S	S
ROOM HEATER	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	100%	100%	S	S	S	S	100%	100%	S	S	S
RADAIANT CONVECTOR HEATER	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	100%	100%	S	S	S	S	100%	100%	S	S	S
WATER STORAGE HEATER	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	100%	100%	S	S	S	S	100%	100%	S	S	S
GAS FIRE	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	100%	100%	S	S	S	S	100%	100%	S	S	S
BACK BOILER	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	100%	100%	S	S	S	S	100%	100%	S	S	S
OTHER APPLIANCES (if relevant)	100%	100%	100%	100%	100%	100%	100%	100%	100%	S	S	S	100%	100%	S	S	S	S	100%	100%	S	S	S

#### KEY

- 100% = These tests are actually carried out on every appliance produced bearing the CE Mark.
- S = These tests are actually carried out on a regular statistical basis, daily, weekly etc. at the manufacturers' discretion.
- N/A = This indicates that the particular tests are not applicable to the appliance.
- I/A = This indicates that the tests are usually carried out if the appliance is fitted with the component referenced.

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**Quality plans for the certification of fittings :**

CONTROLS	GAS SOUNDNESS	FUNCTIONAL SAFETY (*)	ELECTRICAL SAFETY
Gas valves/ cocks	100%	100%	100%
Electric. temperature controllers	N/A	100%	100%
Mechanical (gas) temperature controllers	100%	100%	100%
Air flow and Pressure Level controllers	N/A	100%	100%
Gas pressure switches	100%	100%	100%
Igniters/sensors		100%	100%
Safety electronics	N/A	100%	100%
Other appliances (if relevant)	100%	100%	100%

(\*) These tests may relate to temperature limits and/or time

Key to matrix:

**100 %** = These tests are usually carried out on every appliance produced bearing the CE Mark

**S** = These tests are usually carried out on a regular statistical basis, daily, weekly, etc. at the manufacturer's discretion.

**N/A** = This indicates that the particular tests are not applicable to the appliance.

**I/A** = This indicates that the tests are usually carried out if the appliance is fitted with the component referenced

In Annex is given a list of terminology, which can be helpful in understanding the text of Annex II, Article 3 and 4 in the Gas Appliance Directive.

**Conclusion**

The Notified Body must ensure that sufficient tests form part of the manufacturer's quality assurance system, based on a quality plan as the example given in the above shown matrix.

Other similar approaches are equally applicable.

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## ANNEX

### Hints of terminology

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The following terms, together with related definitions and considerations, can be helpful in understanding the Essential Requirements of Gas Appliances Directive, as defined in Annex II section 3 and 4.

**'Quality system'** is the organizational structure, responsibilities, procedures, processes, resources for implementing quality management in this context to ensure that CE marked products continue to meet the requirements of the Directive.

**'Quality plan'** in the context of the Directive, are those specific testing, inspection, examination, and product audit programmes unique to gas burning products which will ensure the continuing conformity of the product with the safety requirements.

**'Quality records'**, and charts pertaining to design data as appropriate for CE testing, inspection, survey, audit or review or related results, providing supporting evidence of continuing conformity with the safety requirements. Records must form part of the quality plan and be compatible with the requirements of the Directive, and any agreements between Notified Bodies.

**'Safety audit plans'** are the manufacturers means of defining the specific activities and responsibilities for persons auditing the company's quality system in an organized way, recording the results and taking appropriate action to ensure that the system continues to maintain the product with the safety requirements of the Directive.

**'Purchasing'** of products, components, and sub-contracted services used in the manufacturer of products carrying the CE marks must be procured from sub-contractors selected on their ability to meet the defined specification, and the capability performance.

In the context records of sub-contractors performance is an important factor and also the manufacturers system for corrective action, should the sub-contractor fail to meet the manufacturers specification.

**'Special processes'**: There will be processes within a company where the results cannot be verified by subsequent inspection and testing, and therefore appropriate tests must be specified.

**'Final inspection and testing'** must be included in the Quality Plans and include tests that will ensure that the product meets the safety requirements of the Directive. Such tests must be recorded, and available to Notified Bodies during assessment of the manufacturer's premises (Factory).

**'Inspection and measuring and test equipment'** used in the manufacturers verification of the product in relation to the safety requirements must be identified and calibrated, where appropriate, on a regular and formal basis and records retained.

**'Inspection test status'** is the method of identifying the test status of the product and can include, stamps, tags, labels, routing cards, test software, location, etc.

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