

## **BUSINESS PLAN**

### **CEN/TC 58**

#### **SAFETY AND CONTROL DEVICES FOR BURNERS AND APPLIANCES BURNING GASEOUS OR LIQUID FUELS**

#### **EXECUTIVE SUMMARY**

##### **Scope**

Safety and control devices for equipment burning gaseous or liquid fuels, ranging from small domestic appliances to large industrial burners, excluding the following:

- mechanical controls other than gas controls
- devices for transmission and distribution equipment

The TC 58 standards build a common set to cover the Essential Requirements of EU Directives including assessment procedures and environmental aspects, assisting free trade within the EU.

##### **Business Environment**

The European Heating market alone (space and water heating appliances) is about 10 billion Euros, 75% of which are gas burning appliances (>6 mio. Pcs) and 5% which are liquid fuel appliances. The controls content for each appliance is significant.

Specific aspects of the business environment are as follows:

- The application sectors are manufacturers of mechanical and electrical safety and control devices and their customers who use the devices in the production of domestic gas and liquid fuel burning appliances and large industrial gas burners.
- Parties involved
  - manufacturers of control and safety devices
  - manufacturers of burners and appliances burning gaseous or liquid fuels
  - gas and liquid fuel suppliers
  - test laboratories
  - certifiers
  - government representatives
  - European trade associations
  - consumers

##### **Benefits**

- Since 1991, 15 standards have been adopted (not including revisions and amendments)
- Of the 15 Standards, 15 have been announced, or are expected to be announced, in the OJEC as providing presumption of conformity under the Gas Appliance Directive (2009/142/EC)
- Europe-wide Standards provides commercial benefits to industry in the manufacture and approval of these components
- Confidence of appliance manufacturers, gas and liquid fuel suppliers and consumers with respect to the safety and control devices used in burners and appliances burning gaseous or liquid fuels

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### **Priorities**

- Maintenance of EN 13611:2007 + A2:2011 as a horizontal standard covering all general requirements to be used as a common normative reference, as appropriate, in other CEN/TC 58 standards
- Revision and amendment of existing Standards, together with introduction of new work as appropriate, in order to develop Standards meeting the essential requirements of the Gas appliances Directive 2009/142/EC and – where applicable – the Pressure Equipment Directive (97/23/EEC).

## **1 BUSINESS ENVIRONMENT OF THE CEN/TC**

### **1.1 Description of the Business Environment**

The following political, economic, technical, regulatory, legal, societal and/or international dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this CEN/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

The market of safety and control devices for burners and appliances burning gaseous or liquid fuels is a small but highly specialised market. Customers are the manufacturers of gas or liquid fuel burning equipment. The very high quality requirements on controls are the result of negotiations between clients and manufacturers which can be tested and verified according existing national and regional standards. However the safety requirements in using gas for heating purposes in households and in industry are governed by legislation. In Europe there are in fact 2 major EU Directives: 2009/142/EC of 30 November 2009 on the safety of gas appliances including their controls and 97/23/EEC of 29 May 1997 on pressure equipment.

The safety of burners and appliances burning gaseous or liquid fuels relies on safe and durable control and safety devices.

The state of the art in the field of heating industry is based on high quality products tested against Standards with constructional, functional and safety requirements. All appliances and protective devices are tested and manufactured in factories with quality and production control. In Europe third party product certification is a legal requirement.

The major innovation in the field of control and protective devices is the development of higher integrated controls which combine mechanical functions with electronics, often with dedicated software and sensor technology. A recent focus on energy efficiency will affect controls also, just as well as the integration of alternative heating systems.

The stakeholders for CEN/TC 58 are the manufacturers of control and safety devices, the manufacturers of burners and appliances burning gaseous or liquid fuels, the gas and liquid fuel suppliers, test laboratories and certifiers and representatives of government and of European trade associations. The interests of consumers are looked after via the national delegations.

Other relevant Technical Committees to develop Standards in the field of controls are CLC/TC 72, which covers essentially the electrical safety aspects and CEN/TC 47, which historically covers the requirements for oil burning equipment.

Finally it should also be mentioned that the Standards produced by CEN/TC 58 are being proposed and have already been used as basis for International Standards to ISO/TC 161: Control and protective devices for gas and oil burners and gas and oil burning appliances.

### **1.2 Quantitative Indicators of the Business Environment**

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the CEN /TC:

The market for safety and control devices is very wide due to the large number of control and safety devices used. Export and import of controls are a matter of individual business between control manufacturers and appliance manufacturers or plant assemblers and occurs in, out and

across the European territory. The economic value of Standards in this field cannot be related directly to the value of the production and the trade value of control and safety devices.

Obviously there is a cost reduction for each manufacturer if products can be sold across Europe with one test and one certificate covering all known safety aspects and thus all risks in using it in an appliance. If the annual European-wide trade is probably 5 million control devices and 0,50 € per piece can be saved in test procedures the advantage will be 2,5 million € per year. Yet there is more than savings related to trade figures. Preventing accidents by using high quality control or safety devices, which have been designed to standards based on experience and safety records of the industry can certainly help to avoid spending millions of Euros for liability cost.

## **2 BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC**

Since 1991, CEN/TC 58 has produced 15 European Standards. Several revisions and amendments have been issued. CEN/TC 58 has been producing standards that address the essential requirements of EU Directive 2009/142/EC of 30 November 2009 “relating to appliances burning gaseous fuels” and safety requirements for non-mechanical controls related to appliances burning liquid fuels. Consequently, CEN/TC 58 standards have been listed under this Directive. CEN/TC 58 is also preparing standards through revision or amendment to cover requirements coming from the EU Directive 97/23/EEC of 29 May 1997 on pressure equipment.

Furthermore CEN/TC 58 provides a focus for other CEN technical committees for aspects relating to safety and control devices for burners and appliances burning gaseous or liquid fuels. Indeed all the control and safety devices fitted to the appliance and burner standards produced by the following CEN committees, must comply with their respective CEN/TC 58 standards:

CEN/TC 47 “Atomizing oil burners and their components – function – safety – testing”

CEN/TC 48 “Domestic gas-fired water heaters”

CEN/TC 49 “Gas cooking appliances”

CEN/TC 62 “Independent gas-fired space heaters”:

CEN/TC 106 “Large kitchen appliances using gaseous fuels”

CEN/TC 109 “Central heating boilers using gaseous fuels”

CEN/TC 131 “Gas burners using fans”

CEN/TC 180 “Decentralized gas heating”

CEN/TC 181 “Dedicated liquefied petroleum gas appliances”

CEN/TC 299 “Gas-fired sorption appliances and domestic gas-fired washing and drying machines”

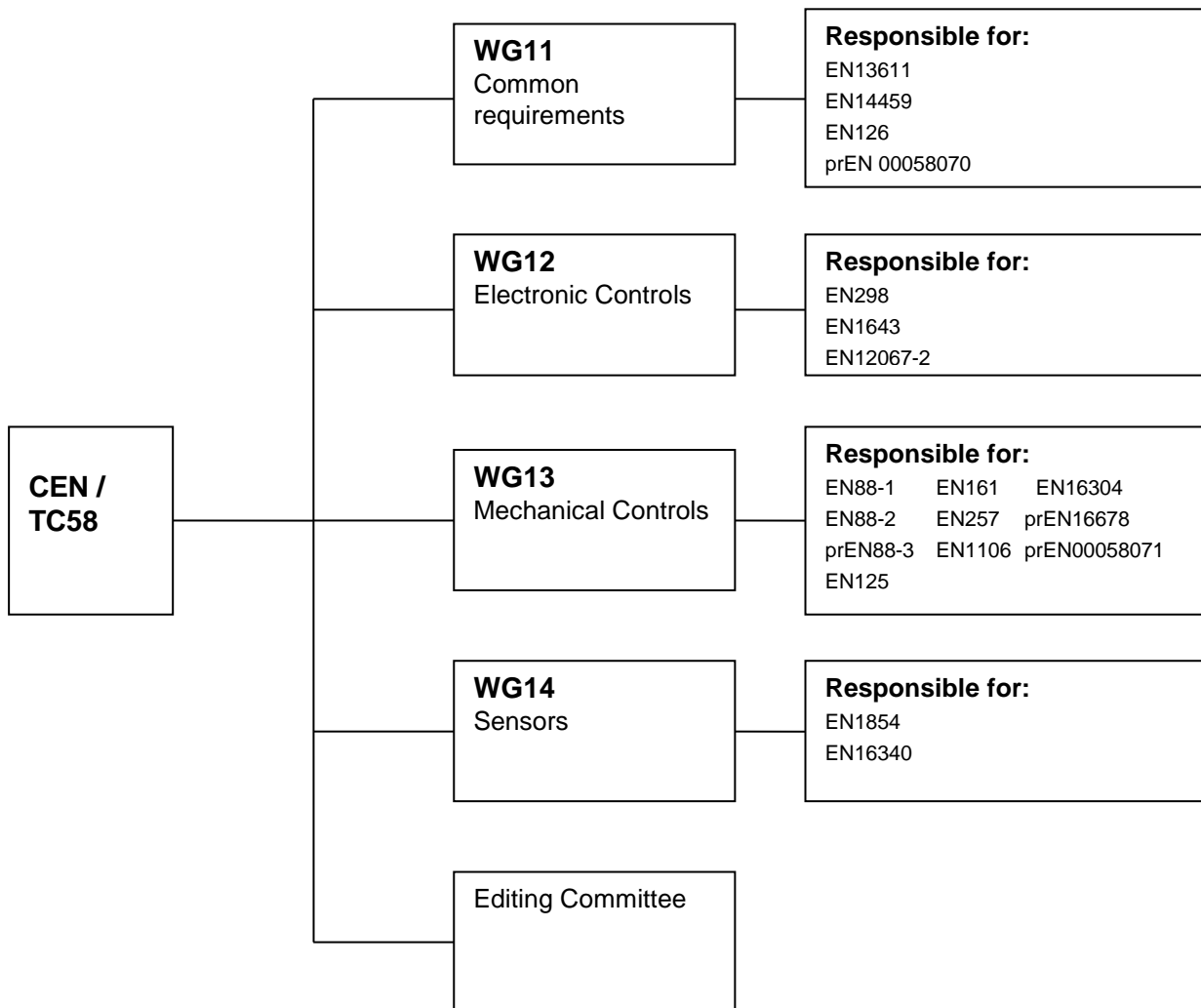
CEN/CLC JWG Fuel Cell Gas appliances - Combined heat and power appliance of nominal heat input inferior or 7 equal to 70 kW

Standards prepared by CEN/TC 58 are being referred to by CEN committees preparing standards for burners and appliances burning gaseous or liquid fuels under other EU directives e.g. the work of CEN/TC 186 “Industrial thermoprocessing - safety” under Directive 89/392/EC.

## **3 PARTICIPATION IN THE CEN/TC**

All the CEN national members are entitled to nominate delegates to CEN Technical Committees and experts to Working Groups, ensuring a balance of all interested parties. Participation as observers of recognized European or international organizations is also possible under certain conditions. To participate in the activities of this CEN/TC, please contact the national standards organization in your country.

The structure of CEN/TC 58 and its working groups, together with the projects for which each working group is currently responsible, is shown below.



## 4 OBJECTIVES OF THE CEN/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

### 4.1 Defined objectives of the CEN/TC

The CEN/TC 58 has the principal objective of developing and maintaining a set of Standards to cover the Essential Requirements of the Gas Appliance Directive (2009/142/EC) and standards that cover safety requirements for oil controls, and where applicable of the Pressure Equipment Directive (97/23/EEC).

The further development of this set of standards will be undertaken as follows.

EN 13611:2007 is a horizontal standard which has been updated from the 2007 release with

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amendments to cover aspects of Safety Integrity Level (SIL) and Performance Level (PL) assessments (A2:2011).

All CEN/TC58 product standards are now updated or close to being updated to the EN 13611 structure, numbering and requirements. The revision of EN 13611:2007 + A2:2011 is now in progress, making use of all experiences from updating the CEN/TC58 product standards including:

- Addition of cork-rubber material requirements
- Moving remote reset requirements from EN 14459 annex J into EN 13611
- Update of electronic and emc requirements
- Update of (electro-)mechanical requirements

Since the burner control technology has advanced to feature more electronic controls, the requirements for gas burner controls and oil burner controls are converging. In the light of this, TC58 with the support of CEN/TC 47, has extended its scope to cover liquid fuels. EN 298: 2012 is covering both gas and oil burner controls replacing EN 230:2005 (Oil Burner Controls) and EN 298:2003.

New technologies and the approach to assess these are described in EN 14459, specifically the methodology and some applications, for example Gas shut-off function and Temperature control function. Currently a revision of EN 14459 is on its way to update the generic assessment procedure to include application aspects and remove the annexes with examples for the assessment method.

CEN/TC58 decided to move the remote reset annex into EN 13611, the Gas Shut-off function into EN 126 and to draft a new standard on temperature control function based on today's annexes for TTB and Temperature control function.

### **4.2 Identified strategies to achieve the CEN/TC.s defined objectives.**

#### **Prioritisation of projects**

As the general requirements standard EN 13611 is the one standard that covers all generic requirements, it is essential to keep this standard up to date and add all generic requirements as it seems necessary. This will avoid amending all control standards individually.

Subsequently the controls standards will have to be updated on a regular basis.

#### **Ways of working**

CEN TC 58 has revised the working group structure to have less working groups which then contain all experts for a certain field, making work more efficient.

Where appropriate, CEN/TC 58 has made use of the UAP procedure for approval of amendments and revisions. In some cases the first working draft of a standard was prepared outside of the CEN/TC 58. After approval as a new work item the first working draft was used as a starting point for the work in the Working Group.

When new work item proposals have been suggested, but there have been concerns whether the work can be accomplished within a three year time frame, the responsible Working Group has been requested to undertake a feasibility study and to present its results and recommendations to CEN/TC 58 for further action as appropriate.

Another approach is to identify work items that need to be undertaken, but rather than register them all at the same time, identify the priorities and then stagger the registration. This avoids overloading the Working Groups and Secretariats and minimizes the amount of administration

required if a tolerance is required for target dates. In addition, CEN/TC 58 makes use of the preliminary work item option in order to undertake preparatory work for new work items, including some revisions.

#### **4.3 Environmental aspects**

CEN/TC58 drafts standards for safety related functions, where safety will always have priority over environmental aspects if no alternative is available.

The scope of CEN/TC58 standards is limited to product design aspects, which means that no production process aspects can be included.

For new and revised standards, a guidance document is in preparation by CEN/TC58 to draw the attention of working group members to Environmental Aspects for inclusion in standards.

Aspects that can be considered include:

- power saving circuits in electro-magnetic valves
- low energy controls
- use of base material and necessary surface treatments
- weight and size of products (transport / packaging)

### **5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE CEN/TC WORK PROGRAMME**

There are a number of factors which might impact upon the completion of the CEN/TC 58 work programme, as follows.

Most of the requirements that are being described in the controls standards might easily be applicable for more than one type of control, so that there is always a challenge to identify the requirements which should preferably go into the generic standard EN13611. Keeping the generic standard plus the individual controls standards up to date simultaneously is not easy. The new structure of TC 58 with a smaller number of working groups does actually help to achieve that, because it is easier to share information.

Some working groups have noted the limited participation of experts and further support would be welcome in order to expedite the completion of the work programme.

To manage the work programme effectively, it is also necessary for the Secretariat to minimize the risk of overload of both working groups and the Secretariat, which would result if all possible future work items were registered at the same time. Such multiple registrations of the work items can arise if several Decisions are taken on the same date (for example at a plenary meeting). Such multiple registrations of the work items would make it more difficult for the CEN/TC 58 to meet the three year time frame (or one year in the case of UAP projects) for the work items.