

# Examples for environmental clauses in CEN/TC business plans

## **CEN/TC 47 Atomizing oil burners and their components - Function - Safety - Testing**

### **4.3 Environmental aspects**

- Standardisation of test methods for the determination of emissions to the air.
- Fixing of emission classes.
- Fixing of requirements for devices in the piping to avoid any contamination of ground water with heating oil.
- Requirements concerning efficient use of fuel.
- Considering of airborne noise emissions from burners.
- Recyclability of the products at the end of the life cycle.

CEN/TC 47 agreed to consider environmental aspects during the preparation and revision of product standards and recommended to include an environmental checklist according to CEN Guide 4 "Guide for addressing environmental issues in product standards" as informative annex to these standards.

## **CEN/TC 125 Masonry**

### **4.3 Environmental aspects**

In line with the CEN policy on addressing environmental issues in relation to product standards, CEN/TC 125 recognises the need to consider any potential impact resulting from the use of masonry products in construction and the potential for impacts on the environment in use. To these ends CEN/TC 125 is committed to addressing these potential issues in the development and production of associated masonry standards.

Currently, CEN/TC 125 has 2 TGs, one looking into the reporting of Regulated Dangerous Substances, and in particular the release to soil, surface and groundwater from masonry products, as well as the release of substances into indoor air. This TG is shortly to be converted to a WG in order for wider consultation and participation of representatives and the process of drafting guidance into the next revision of the product standards.

The second TG is focused on the development of guidance to be included in future product standards in respect of the development of Product Category Rules (PCR), to enable manufacturers to make Environmental Product Declarations in compliance with EN 15804.

In order to maintain the most up to date understanding of the development within these areas, the TC has active representation within CEN/TC 350 'Sustainability of construction works' and CEN/TC 351 'Construction Products - Assessment of release of dangerous substances' that feed back information in respect of current activities of these standards committees.

## **CEN/TC 155 Plastics piping systems and ducting systems**

### **4.3 Environmental aspects**

The TC includes the following considerations on environmental aspects in the standardisation of plastic piping systems.

#### *Efficient use of material*

Based on the type and strength of the plastic material (e.g. PVC-U, PE, PP, GRP) product standards specify for pipes test methods, design factors and procedures to allow determination of the most efficient wall thicknesses as related to pressure and/or stiffness classes.

#### *Fitness for purpose of the products during product life time*

The design of plastic piping systems is based on a 50 year rating time to establish long term properties and product designs. It is to this 50 year rating point that design factors are applied. For thermoplastic pressure pipe materials the strength of the material per the MRS classification is based on a 50 year value in accordance with ISO 9080. For GRP materials the product standards specify the long term testing, analysis and design procedures for establishing product designs. For all products, as the 50 year point is used for rating and design, it is not unreasonable to expect useful life to be well in excess of 50 years.

It is not unreasonable to expect that non-pressure pipes might have an even longer life than pressure pipes due to the generally lower stress levels.

In product standards the tests for fitness for purpose are related to the long term life of plastic piping systems. The most important tests with respect to impact on environment during the functional life of the piping system are mechanical integrity and joint tightness. The TC will continue to include requirements for these characteristics in the product standards.

#### *Utilisation of recyclable materials*

There are clear advantages, from an environmental viewpoint, in being able to utilize recycled plastic materials compared with using virgin materials.

Recycling and processing technology has been progressed during the past several years such that utilisation of thermoplastic recyclable plastic materials now is possible. Research on recycling of composite materials is on-going and progress is followed by the TC.

CEN/TS 14541 has been created to serve as a guidance to specify the quality of recyclable PVC-U, PE and PP materials

In thermoplastic piping product standards for piping systems for non-pressure applications, utilisation of recycled material is allowed and quality requirements for the materials and products are specified.

The TC 155 will continue to support the development of using recycled materials in the all products covered by TC 155 as the technology is refined to allow safe, efficient and economic use.

#### *Innovation*

The TC will conduct reviews of product standards whenever any environmental impact might be significantly reduced by application of new knowledge and technology.

## **CEN/TC 234 Gas infrastructure**

### **4.3 Environmental aspects**

#### General

This topic keeps becoming more and more important due to the ongoing climate change and the rising awareness that a failure to act will cause irreversible damage to environment. This has led to the phrasing of several clear objectives within the EU concerning environmental issues (e.g. low carbon goal, etc.).

#### Gas and environment

Gas is an essential component to a clean, competitive and secure energy future. It is unanimously recognized as the most environmentally friendly and sustainable fossil fuel with the lowest CO<sub>2</sub> emissions. Furthermore, it can enable renewable energy sources. Using gas instead of other fossil fuel, it is the cheapest and fastest way to reduce CO<sub>2</sub> emissions significantly. Lastly, gas is not only quickly available but can also be stored effectively in large quantities.

Gas Infrastructure, by being by far the safest way to transport energy, reflects an excellent safety level.

Therewith, gas corresponds to the European energy vision (e.g. low carbon energy). It offers a promising the higher objectives of the EU commission strategy 2050: A secure low carbon energy system that focuses on security, energy efficiency and sustainability.

#### Environmental aspects in CEN/TC 234

CEN/TC 234 elaborates functional standards for gas infrastructure in which standardized products are used. As the environmental aspects related to the manufacturing of products and the use of materials are already dealt with in each product standard (CEN guide 4:2008), CEN/TC 234 standards refer exclusively to the environmental aspects related to gas infrastructure including transmission, distribution, storage, compression/ stations, pressure regulating stations and metering, installation, injection of non-conventional gases, gas quality issues and others.

In this respect, potential environmental indicators are:

- resources used
- energy consumption/ use
- emissions to air
- emissions to water
- waste
- nuisances
- risk to environment by accident or misuse
- environmental impact on land
- migration of dangerous substances
- impact on soil
- climate change

The named indicators are described in relation to the specific processes in detail in CEN/TR 16388. Where necessary, CEN/EHD is contacted for assistance.

Referring to the allocation of an EU Mandate to CEN/CENELEC on the (potential) adaptation of standards to climate change (2014), the aspects of climate conditions are respected in the CEN/TC 234 standards which deal with design, construction, operation and maintenance of gas infrastructure including gas installations. Consequently, the consideration of climate change is included in the design and construction of new infrastructure.

The adaptation of existing infrastructure cannot be covered in these standards. Climate change issues should be considered in asset management or safety management as an option.

Environmental aspects are being regularly and recurrently discussed at TC 234 meetings. It is explicitly requested that the issues concerning this topic as well as the progress in approaching final objectives are kept track of.

#### Reflection in New Work Item Proposals

In case of New Work Item Proposals (NWIPs) or in case of adoption of Work Items, CEN/TC 234 takes care that the necessary expertise is incorporated in the dedicated working groups. In this regard, CEN/TR 16388 represents a guideline in setting requirements regarding environmental issues in the gas infrastructure and serves as a fundamental background for the experts. Within the work of CEN/TC 234 it has the intent to elicit an in-depth reflection on all possible environmental consequences. It intends to do so during the planning as well as the actual execution of an operative action.