BUSINESS PLAN

CEN/TC 182
REFRIGERATING SYSTEMS, SAFETY AND ENVIRONMENTAL REQUIREMENTS

EXECUTIVE SUMMARY

Business Environment

- Refrigerating systems, heat pumps, air conditioning systems and automotive systems are marketed in all sizes (from refrigerators to large industrial plants) for all kind of application. They are delivered in large quantities as complete factory made refrigerating systems or installed directly on site. Refrigerating systems and heat pumps are traded all over the world. For the purpose of this business plan, refrigerating systems mean all applications and all systems.

- Parties involved:
  - Industry;
  - Consumers;
  - Public authorities;
  - non governmental organisations
    and their existing representative organisations.

Benefits

- To limit the impacts of refrigerating systems on safety, health and the environment

- Since 1990, more than 15 standards were adopted, main topic was the development of the basic standard EN 378 for refrigerating systems (horizontal standard)

Priorities

Priority in the work of CEN/TC 182 has been given to:

- Standards that fulfill the essential requirements of the Directive on Pressure Equipment 2014/68/EU

- Standards that fulfill the essential requirements of the Directive on Machinery Safety 2006/42/EC

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:

- Political factors:
  Increased political awareness of environmental aspects energy consumption which is differing from country to country.

- Economical factor:

The annual turn –over of the manufacturing industries is approximately 50 billion Euro

- Social factors

Society is pushing to minimize possible hazards to persons, property and the environment from refrigerating systems and refrigerants.

- Technical factors:

New refrigerating fluids, efforts to limit emissions and efforts to improve energy efficiency all contribute to the optimization of systems operations.

- Legal factors:

On the basis of the Montreal and Kyoto Protocol and European Regulations certain refrigerants are no longer permitted in future. New solutions are required.

- International trade and standardization aspects:

Recognised European standards also facilitate the exchange of goods on the international market. This concerns a market that is relatively open and where exchanges are important. The other two production poles are the USA and Japan along with Southeast Asia.

ISO/TC 86 and IEC 61 also deal with standards linked to the field of work of CEN/TC 182.

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 182:

The annual turn-over of the manufacturing industries is approximately 50 billon Euros.

2 BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC

- Fixing a common level of safety
- Limitation of the impacts on health and environment
- Supporting European legislation
- Removing barriers to trade

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.

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

4.1 Defined objectives of the CEN/TC

Objectives are the elaboration of standards in three main fields:

1) Basic standards covering safety and environmental requirements for the complete system

2) Standards on design, testing installation, operation, maintenance and repair of the relevant components

3) Increasing the competence of personel with regard to design, installation, operation, maintenance and repair of the relevant components.

The objective is to limit the impacts on the safety, health and environment of refrigerating systems by an effective risk analysis and the correct processing of the associated requirements throughout the entire lifetime of the system. The limitation of refrigerating fluid emissions is included in this objective.

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

The field of refrigerating systems covers a large technical field. For this reason working groups have been created to cover special aspects.

A joint working group has been created with CEN/TC 54 "Simple pressure vessels".

Furthermore, liaisons have been established with:

- ASERCOM — Association of European Refrigerating Compressor and Controls Manufacturers
- CEFIC — European Chemical Industry Council – European Fluorocarbon Technical Committee
- ECOS — European Environmental Citizens Org. for Standardisation
- EPEE — European Partnership for Energy and the Environment
- JSMO — The Jordan Institution for Standards and Metrology
- CEN/TC 44 — Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption
- CEN/TC 69 — Industrial valves
- CEN/TC 113 — Heat pumps and air conditioning units
- CEN/TC 267 — Industrial piping and pipelines

Furthermore, ISO/TC 86/SC 1/WG 1 documents and ISO/TC 86/SC 8/WG 5 are distributed within CEN/TC 182 in order to harmonize ISO 5149 and EN 378.

4.3 Environmental aspects

The CEN/TC 182 shall consider environmental aspects throughout the life cycle in all of its tasks including but not limited to the following:

- Handling of refrigerants, oils and heat transfer fluids;
- Disposal of refrigerants, oils and heat transfer fluids;
- TEWI (en: total equivalent warming impact): global warming by combining the direct contribution of refrigerant emissions into the atmosphere with the indirect contribution of the carbon dioxide and other gas emissions resulting from the energy required to operate the refrigerating system over its operational life;
- Ecodesign requirements, where relevant;
- Tightness of refrigerant containing components and of the refrigerating circuit during their lifetime to avoid emissions;
- Emission releases;
- Handling of hazardous substances.

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

- The rescources of the different experts are decreasing.