

BUSINESS PLAN

CEN/TC 269 SHELL AND WATER-TUBE BOILERS

EXECUTIVE SUMMARY

Business Environment

This technical committee CEN/TC 269 has the task to elaborate standards for Shell boilers and Water-tube boilers with volumes greater than 2 litres for the generation of steam and/or water at an allowable pressure greater than 0,5 bar and with a temperature in excess of 110 °C. Furthermore, firing systems and further auxiliary installations for use in power plants are covered by these standards.

These standards comprise:

- the determination of precautions to ensure that the hazards associated with the operation are reduced to a minimum and that adequate protection is provided to contain the hazards that still prevail when the boilers are put into service;
- the determination of requirements for semi-finished products;
- the calculation and design of the boilers also taking account of the creep and fatigue behaviour of the materials used;
- the manufacturing details and provisions;
- the inspection during and after fabrication;
- the determination of safeguards against excessive pressure and of requirements for limiting devices and safety circuits;
- the design of firing systems and flue gas cleaning systems;
- operating instructions;
- acceptance tests.

The maintenance of these standards is operated by a Migration Help Desk (MHD).

Parties involved in the standardization process are:

- shell and water-tube boilers manufacturers;
- shell and water-tube boilers using industries;
- inspection bodies.

Benefits

European standards for shell and water-tube boilers determining a common European level of safety, of such boilers will benefit the sector as a whole.

Shell and water-tube boilers are related to the European Directive on Pressure Equipment 2014/68/EU. This European Directive specifies Essential Safety Requirements (ESR's) which are dealt with in detailed requirements layed down in harmonised European Standards.

Priorities

The priorities are:

- European product Standards to meet the ESR's of Pressure Equipment Directive 2014/68/EU;
- European performance standards for the boilers design, calculation and manufacture being applicable to specific industries.

To meet these proceedings the following items are currently active:

- revision of the part on: general requirements for water tube boilers (FprEN 12952-1)
- preparatory work for revision of requirements for firing systems for water tube boilers (EN 12952-8, -9, -16);
- preparatory work for revision of requirements for safeguards for water tube boilers (EN 12952-10);
- revision of the part on: design and calculation for shell boilers (FprEN 12953-3)
- revision of the part on: Workmanship and construction of pressure parts for shell boilers (prEN 12953-4)
- revision of the part on: Inspection during construction, documentation and marking of pressure parts of shell boilers (prEN 12953-5).

Furthermore, 11 parts of the EN 12952 and EN 12953 series are candidates for revision.

1 BUSINESS ENVIRONMENT OF CEN/TC 269

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 work of CEN/TC 269 concerns the task of establishing European Standards for shell boilers and water-tube boilers in order to

- fulfill the Essential Safety Requirements set up by the PED;
- reduce costs by using standardized components and manufacturing procedures;
- contribute to the prevention of accidents when operating such fired boilers.

1.2 Quantitative Indicators of the Business Environment

No public data available and also no information received from CEN/TC 269 member bodies.

2 BENEFITS EXPECTED FROM THE WORK OF THE TECHNICAL COMMITTEE

- Preparation of harmonized European Standards to support the European Directive PED as referenced above.
- Removal of barriers to trade in Europe and opening of the market throughout all EU member countries by replacing their national standards and codes with these European Standards.
- Determination of high level of quality for these shell boilers and water-tube boilers by setting certain performance requirements as a minimum.

3 PARTICIPATION IN THE TECHNICAL COMMITTEE

All CEN national members are entitled to nominate delegates to this CEN Technical Committee and experts to its 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 TECHNICAL COMMITTEE AND STRATEGIES FOR THEIR ACHIEVEMENT

4.1 Defined objectives of the Technical Committee

There is evidence that the applied industries have a need for shell and water-tube boilers for use in many industrial sectors.

The design and manufacture of shell and water-tube boilers involve a number of different materials and a number of different manufacturing methods. It is implicit that boilers conforming to the European Standards established by CEN/TC 269 should be made only by manufacturers

who are competent and suitably equipped to fulfil all requirements, using materials manufactured by competent and experienced material manufacturers.

The objectives of CEN/TC 269 to fulfill these needs are in the preparation of European Standards:

- 1) determining the terminology and the basic requirements for materials, design and manufacture, as well as testing;
- 2) giving presumption of conformity with the Essential Safety Requirements (ESR's) of the EU Directive PED;
- 3) for the use of shell and water-tube boilers showing fitness of use in different industrial sectors.

4.2 Identified strategies to achieve the Technical Committees defined objectives

CEN/TC 269 has set up two working groups (WG) as follows:

- CEN/TC 269/WG 1 "*Water-tube boilers*"
- CEN/TC 269/WG 2 "*Shell boilers*"

Furthermore, a Migration Help Desk (MHD) has been established to deal with interpretation questions coming from the user industries. As far as technical changes of or additions to the various parts of the standards series EN 12952 and/or EN 12953 are proposed to the MHD by the commentators, these proposals are forwarded to the responsible WG for consideration.

Liaisons have been established between CEN/TC 269 and the following CEN Technical Committees and with external organizations as follows:

- CEN/TC 47, *Atomizing oil burners and their components – Function – Safety - Testing*
- CEN/TC 54, *Unfired pressure vessels*
- CEN/TC 69, *Industrial valves*
- CEN/TC 121, *Welding*
- CEN/TC 131, *Gas burners using fans*
- CEN/TC 267, *Industrial piping and pipelines*
- ECISS/TC 110, *Steel tubes, and iron and steel fittings* (incl. WG 1, *Tubes for pressure purposes*; and WG 3, *Fittings*)
- ECISS/TC 111, *Steel castings and forgings*
- EHI, *European Heating Industry association*

4.3 Environmental aspects

The TC takes account of European and national legislation, guidance and latest practices on environmental aspects related to efficiency and emissions (affecting air, ground water, noise etc.)

CEN/TC 269 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.

5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE TECHNICAL COMMITTEE WORK PROGRAMME

To fulfill the ESR's of the EU Directive PED referenced above in an acceptable time, the CEN/CENELEC Management Centre (CCMC) has set a certain pressure also on CEN/TC 269 to complete their open work items as soon as possible. Therefore, it becomes necessary to make further efforts to satisfy these requests with high priority. CEN/TC 269 will outline a priority about revision of the standard, to correct technical errors and to look at making the EN boiler standards appropriately competitive whilst maintaining compliance with the ESR's of the PED.