



« Industrial piping and pipelines »

CEN/TC 267

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Draft Business Plan of CEN/TC 267 Updated during the 36th Plenary Meeting 1st December 2022 (online meeting - Zoom)

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Draft Business Plan of CEN/TC 267 "Industrial piping and pipelines" updated during the 36th Plenary Meeting (1st December 2022 – Zoom).
Linked to Document CEN/TC 267 **N 1453**.

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OLLOW UP

Business Plan sent to CCMC (centcbp@cen.eu) in accordance with Decision N 019/2022 of CEN/TC 267

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OURCE

Patrick AMESLON, UNM on behalf of AFNOR,
CEN/TC 267 Secretariat



BUSINESS PLAN

CEN/TC 267

INDUSTRIAL PIPING AND PIPELINES

EXECUTIVE SUMMARY

Business Environment

CEN/TC 267 work is to standardize the rules to set up a construction code of industrial piping and safety systems.

The parties involved are:

- manufacturers;
- engineering departments;
- national associations representing the industry of piping;
- regulators (national and European);
- users;
- market operators.

Most manufacturers and engineering departments are located in the following countries: Belgium, Denmark, Finland, France, Germany, Italy, Norway, Sweden and United-Kingdom.

Nowadays most of the activity is the maintenance and renovation of existing piping systems.

All the work of CEN/TC 267 has been carried out in the context of the new approach Pressure Equipment Directive 2014/68/EU (PED).

Directive 97/23/EC of the European Parliament and of the Council has been aligned to the New Legislative Framework (NLF) and the Classification, Labelling and Packaging (CLP) Regulation. The new number is 2014/68/EU "Pressure Equipment" of 15 May 2014.

Benefits

- CEN/TC 267 provided users with a European code for the design, calculation, manufacturing, installation, inspection and testing of industrial piping: EN 13480 available in 8 parts. This construction code is aimed to reduce the cost of piping systems, through harmonization of national practices in Europe. Moreover it allows maintaining a high level of quality, of performance and of safety.
- This European code was intended to replace specific national technical and safety rules, to remove any barrier to trade and to improve safety within the European Union.
- EN 13480 series are harmonized under Pressure Equipment Directive 2014/68/EU (PED). Therefore compliance with them confer presumption of conformity with the Essential Safety Requirements of this European Directive.

Priorities

The EN 13480 series were re-published in 2017 (New Edition). They are complex (as illustrated by the number of figures, tables and equations). Therefore the priorities of CEN/TC 267 are:

- to regularly update the EN 13480 series as quickly and efficiently as possible, so that this European code does not become out-of-date;
- to answer queries from users of EN 13480 series.

A maintenance group was created in 2004 to help CEN/TC 267 undertake these tasks.

The aim is that this European code remains competitive in comparison with National and American construction codes.

1 BUSINESS ENVIRONMENT OF CEN/TC 267

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 scope of CEN/TC 267 is to standardize the rules to set up a construction code, including the choice of materials, design, fabrication, installation, inspection and testing of industrial pipings and safety systems. "Industrial piping" means pipes or pipe networks for the conveyance of fluids and located on the premises of an industrial site.

CEN/TC 267 is dealing with industrial piping systems and supports, including safety systems, with a view to ensure safe operation. It deals with piping above ground, ducted or buried.

The following are excluded from the scope of CEN/TC 267:

- pipelines for waste water, and piping for waste water, the latter being directly evacuated via the sewer system outside of industrial premises and/or in the environment (dealt within CEN/TC 165);
- pipelines for gaseous fuels, that is to say any fuel that is in gaseous state at a temperature of 15 °C and at a pressure of 1 bar (dealt with in CEN/TC 234);
- piping and pipelines for water for human consumption (dealt with in CEN/TC 164);
- pipelines for petroleum and natural gas industries (dealt with in CEN/TC 12).

For the moment CEN/TC 267 has restricted its work to the standardization of industrial piping made of metallic materials. Other materials may be dealt with later.

All the work of CEN/TC 267 was carried out in the context of the new approach Pressure Equipment Directive 97/23/EC (PED) which has been mandatory in the European Union since 29th May 2002. The requirements of the new PED 2014/68/EU are also continuously covered in next revisions. The aim of this European Directive has been to replace specific national rules with European rules, to remove any barrier to trade and to improve safety within the European Union.

In this field the industry consists of medium and important manufacturers of piping systems. The stakeholders are the following :

- manufacturers;
- engineering departments;
- national associations representing the industry of piping;
- regulators (national and European);
- users.

Most manufacturers and engineering departments are located in the following countries: Belgium, Denmark, Finland, France, Germany, Italy, Norway, Sweden and United Kingdom.

Standardization has not resulted in significant changes in the construction of industrial piping, since the technology is well developed and innovation is low. However the construction code was re-published as EN standard as Issue 1 in 2017-06. Therefore nowadays the main concern of the stakeholders is to keep this code continuously up-to-date, by correcting the editorial errors and by amending it with new data.

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 CEN/TC:

The estimated number of medium and important manufacturers of industrial piping in Europe is 2000.

Nowadays most of the activity is the maintenance and renovation of existing piping systems.

2 BENEFITS EXPECTED FROM THE WORK OF CEN/TC 267

- The first aim of CEN/TC 267 has been to provide users with a consistent code for the design, calculation, manufacturing, installation, inspection and testing of industrial piping. This has been done by the publication of a European standard EN 13480 available in 8 parts.
- This European code EN 13480 was intended to replace specific national technical and safety rules, to remove any barrier to trade and to improve safety within the European Union. EN standards prepared by a CEN technical committee replace national standards in all countries member of CEN.
- EN 13480 series are harmonized under Pressure Equipment Directive 2014/68/EU (PED). Therefore compliance with them confer presumption of conformity with the Essential Safety Requirements of this European Directive.
- This code is aimed to reduce the cost of piping systems, through harmonization of national practices in Europe. Moreover EN standards allow to maintain a high level of quality, of performance and of safety.
- Another benefit of European standardization within CEN/TC 267 is to allow European manufacturers and users to meet in a well-known structure, to write together standards which are used by all.

3 PARTICIPATION IN CEN/TC 267

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 CEN/TC 267 AND STRATEGIES FOR THEIR ACHIEVEMENT

4.1 Defined objectives of CEN/TC 267

CEN/TC 267 construction code is available as a European Standard, EN 13480, which is divided in 8 parts:

- EN 13480-1:2017 "Metallic industrial piping - Part 1: General"
- EN 13480-2:2017 "Metallic industrial piping - Part 2: Materials"
- EN 13480-3:2017 "Metallic industrial piping - Part 3: Design and calculation"
- EN 13480-4:2017 "Metallic industrial piping - Part 4: Fabrication and installation"
- EN 13480-5:2017 "Metallic industrial piping - Part 5: Inspection and testing"
- EN 13480-6:2017 "Metallic industrial piping - Part 6: Additional requirements for buried piping"
- CEN/TR 13480-7:2017 "Metallic industrial piping - Part 7: Guidance on the use of conformity assessment procedures"
- EN 13480-8:2017 "Metallic industrial piping - Part 8: Additional requirements for aluminium and aluminium alloy piping"

All these parts, except CEN/TR 13480-7:2017 are harmonized under Pressure Equipment Directive 2014/68/EU (PED) and give presumption of conformity to this Directive.

The objectives of this European code were:

- to replace specific national technical and safety rules by a unique European code;
- to remove any barrier to trade; and
- to improve safety within the European Union.

Moreover in the context of the world-wide trade (World Trade Organisation), it is important to have a complete and consistent system which can be applied both inside and outside the EU.

New rules of publication have been adopted for EN 13480 series through CEN/BT Decision C172/2021, which will be applied after the publication of the new Edition 2023.

Therefore nowadays the main objectives of CEN/TC 267 are:

- to regularly update the EN 13480 series as quickly and efficiently as possible, so that the code does not become out-of-date;
- to answer queries from users of EN 13480 series.

A maintenance group was created in 2004 to help CEN/TC 267 undertake these tasks and to answer questions.

4.2 Identified strategies to achieve defined objectives by CEN/TC 267

4.2.1 CEN/TC 267

CEN/TC 267 has a plenary technical committee once a year to discuss the most important issues. The rest of the work is done by correspondence, using emails and a website opened at the following address: <https://sd.cen.eu/documents/ui/#!/browse/cen/cen-tc-267>

This website is updated by the secretary of CEN/TC 267 (UNM on behalf of AFNOR).

Working groups were created for each part of the code, as it was done in the other main TCs dealing with pressure equipment.

- WG 1 "General" (France)
- WG 2 "Metallic materials" (Germany)
- WG 3 "Design and calculation" (France)
- WG 4 "Manufacturing and installation" (Germany)
- WG 5 "Inspection and testing" (Germany)
- WG 8/MHD "Maintenance of EN 13480 series" (France)
- WG 9 "Aluminium and aluminium alloy piping" (Germany)

Furthermore, CEN/TC 267 works in close liaison with the following CEN/TCs:

- CEN/TC 54 "Unfired pressure vessels"
- CEN/TC 74 "Flanges and their joints"
- CEN/TC 69 "Industrial valves"
- CEN/TC 121 "Welding"
- CEN/TC 132 "Aluminium and aluminium alloys"
- CEN/TC 250 "Structural Eurocodes"
- CEN/TC 268 "Cryogenic vessels and specific hydrogen technologies applications"
- CEN/TC 269 "Shell and water tube boilers"
- CEN/TC 459/SC 10 (ex-ECISS/TC 110) "Steel tubes, and iron and steel fittings"

In particular CEN/TC 267 and CEN/TC 54 are working closely:

- these two technical committees have 2 joint working groups, WG 2, which deals with metallic materials and WG 5, which deals with inspection and testing;
- some clauses of EN 13480 and EN 13445 series are similar (EN 13445 series has been drafted by CEN/TC 54);
- CEN/TC 267 and CEN/TC 54 have a maintenance group created by a CEN BT resolution; their methods of working are the same.

A maintenance group, created in 2004, has been working as a help desk, answering all the questions from users of EN 13480 series. Furthermore the maintenance group may decide to make editorial corrections in the text of EN 13480.

Moreover EN 13480 series have been regularly updated through the adoption of technical amendments.

The modifications of the standard (corrections or amendments) result in new issues (yearly update) and consolidated versions (new Edition every 5 years) of the standard. New rules of publication have been adopted for EN 13480 series through CEN/BT Decision C172/2021, which will be applied after the publication of the new Edition 2023.

Subjects under discussion at CEN level for future evolution.

4.2.2 CEN/TC 267 maintenance group (or Help Desk)

In 2004 CEN BT created a maintenance group to regularly update the EN 13480 series and to answer questions from users. CEN BT provided the scope and methods of working of this group.

This new structure was necessary because of the complexity of CEN/TC 267 standards (as illustrated by the number of figures, tables and equations). Without this maintenance group, the EN 13480 series would rapidly become out-of-date and could not be competitive.

The experts of this group are those who participated to the drafting of EN 13480 series, and any other expert who has the necessary technical knowledge.

The maintenance group has a meeting once a year. The rest of the work is done by email. And a website is available at the new following address and Email: <https://www.unm.fr/en/homepage/activities/maintenance-agencies/en-13480> and en13480@unm.fr

This website is updated by the secretary of the maintenance group (UNM on behalf of AFNOR).

The maintenance group tasks are:

- to be a central point to collect questions from users of the standard;
- to be able to answer in a short time these questions;
- to be able to give answers approved by the experts who drafted the standard.

The questions on EN 13480 series are sent to the secretary of the maintenance group (UNM on behalf of AFNOR) using a word form. Then the secretary sends by email the question and a proposed answer to the experts of the maintenance group for approval.

The follow-up of the questions is the following:

- the question may result in an interpretation which is available on the private part of the website of the maintenance group;
- the question may result in a correction: then the secretary of the maintenance group prepares the corrected pages sent to CEN and circulated to National Standardization Bodies as a new issue of EN 13480;
- if the question is technical, then it is sent back to the relevant Working Group of CEN/TC 267; it may result in technical amendments which are dealt with by CEN/TC 267 according to the CEN rules.

The author of the question is informed by email of the follow-up of his/her question.

The collection of MHD questions and answers are published on the public Website of MHD.

4.3 Environmental aspects

CEN has put in place a general framework to promote and ensure a better inclusion of environmental aspects in European Standards. CEN/TC 267 updated its Business Plan in 2018 to include of an environmental clause.

CEN/TC 267 agreed to consider environmental aspects during the preparation and revision of product standards and the possibility to use an environmental checklist according to CEN Guide 4 "Guide for addressing environmental issues in product standards" when starting the work on a project.

CEN/TC 267 is aware of the future adoption of CEN/TS 16524 "Mechanical products - Methodology for optimising environmental impacts in product design and development" developed by CEN/TC 406 "Mechanical products - Ecodesign methodology". It is dedicated to mechanical products.

It is a simple methodology to avoid a full life-cycle analysis which is complex and costly (time-consuming or external consultant). The method allows reducing the impact of products on environment (including packaging).

CEN/TC 267 agreed to consider environmental aspects in standardization as presented in document CEN/TC 267 N 1398 (CEN Webinar 2021-06-10).

5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF CEN/TC 267 WORK PROGRAMME

- ✓ The major risk for CEN/TC 267 is the reducing number of available technical experts.

Some experts who participated to the drafting of EN 13480 series are no more involved in CEN/TC 267. Therefore sometimes it may bring possible difficulties for answering some queries of the users of EN 13480 series and to keep the standard up-to-date.

- ✓ CEN/TC 267 meets another important difficulty: national codes of construction of industrial piping are still available in some European countries and are regularly updated. It does not help the harmonisation of the practices throughout Europe and it is most confusing for users of construction codes. Those national codes are widely used.

Moreover in the USA, there is a widely-known and widely-used code of construction, ASME B31.1 and ASME B31.3.

The European Commission provided funding to cover the costs of the standardization activities of CEN/TC 267. However, nowadays this funding is reducing. Therefore it is still difficult for experts to get resources necessary to participate in the work of CEN/TC 267.
