

CEN/TC 250 ‘Structural Eurocodes’ - Guidance on drafting National Annexes to EN Eurocodes for NSBs

Dated 11 May 2022

CEN BT approved CEN/TC 250 guidance document on drafting National Annexes to EN Eurocodes for NSBs through decision 5/2022 [Ref. 5].

Introduction

The determination of the levels of safety of buildings and civil engineering works and parts thereof is, and remains, within the competence of CEN Members. The national standard implementing the EN Eurocodes in a country can have a National Annex, which is usually published by the relevant National Standardisation Body (NSB) and contains all national choices to be used for the design of buildings and civil engineering works to be constructed in the relevant country. While the principles underpinning the content of National Annexes have not fundamentally changed in the Eurocodes evolution, there are some areas that deserve clarification.

Purpose of this paper

The purpose of this paper is to provide guidance to the NSBs on drafting National Annexes. It is based on discussions at meetings of CEN/TC 250 and interest expressed by the NSBs for more clarity.

Background

Guidance Paper L (GPL) ‘Application and use of Eurocodes’ [Ref. 1] gave guidance on the elaboration, implementation and use of the EN Eurocodes, including content on national provisions for the structural design of works (GPL, 2.1) and National Annexes of the EN Eurocode Parts (GPL, 2.3).

GPL introduced the concept of Nationally Determined Parameters (NDPs), which are represented by values, classes or alternative procedures permitted within the EN Eurocodes where National choice is left open to the relevant country in recognition of the possible differences in geographical or climatic conditions or in ways of life, as well as different levels of protection that can prevail at national, regional or local level.

GPL was written in relation to the Construction Products Directive (CPD), to which it referred and was issued by the Commission. The CPD has been replaced by the Construction Product Regulation (CPR), and it is the Commission’s view that guidance papers are not relevant for a Regulation. However, the Guidance papers remain published documents from the Commission.

Today, a relevant document is the European Commission Recommendation on the implementation and use of Eurocodes for construction works and structural construction products [Ref. 2] (called hereafter Commission Recommendation).

This paper is based on the content of GPL and the Commission Recommendation, which have been reviewed and augmented to help NSBs to draft National Annexes to EN Eurocode parts or CEN Technical Specifications in light of the latest developments in the Eurocodes evolution. When reference is made to EN Eurocode parts, this also applies to relevant CEN Technical Specifications developed in CEN/TC 250.

1. Introduction on National Annexes

- 1.1. Each NSB shall implement the final text of the approved EN Eurocode as a national standard by publication of an equivalent text (i.e. a version translated into another language) or by endorsement of one of the 3 language versions provided by CEN-CENELEC Management Centre, within the timescale agreed for publication.

NOTE: When a Eurocode Part is circulated by CEN for publication as an EN, the final text of the approved EN, according to CEN rules, is made available by CEN-CENELEC Management Centre to the NSBs in the 3 official languages (English, French and German). This step corresponds to the DAV – Date of Availability.

- 1.2. The National Standards Bodies shall assess the need for a National Annex.

NOTE 1: As stated by the CEN Internal Regulations, the National Annex is not a CEN requirement (a NSB can publish an EN Eurocode Part without one). However, the National Annex serves for NSBs to publish the Nationally Determined Parameters, see section 3.

NOTE 2: A National Annex is not necessary in the following cases:

- a) if an EN Eurocode Part contains no choice open for Nationally Determined Parameters, or
- b) if an EN Eurocode Part is not relevant for a CEN Member (e.g. seismic design for some countries), or
- c) if a CEN Member has adopted the default values provided in an EN Eurocode Part as Nationally Determined Parameters applicable in its territory – information, for instance in the foreword of the EN Eurocode part concerned, indicating that the default values are applicable can be sufficient in such a case.

2. Content of National Annexes

- 2.1. A National Annex shall not alter or contradict the content of the EN Eurocode text in any way.
- 2.2. The National Annex may contain, directly or by reference, the national choice on those aspects in the Eurocodes which are explicitly left open to national determination, i.e. the Nationally Determined Parameters (NDPs), to be used for the design of buildings and civil engineering works to be constructed in the country concerned. In broad terms, NDPs are:
- values and/or classes where alternatives are given in the EN Eurocode;
 - values to be used where a symbol only is given in the EN Eurocode;
 - country specific data (geographical, geological, climatic, etc.), e.g. snow map, seismic hazard map;
 - the procedure to be used where choice is given in the EN Eurocode to adopt alternative procedures.
- 2.3. The National Annex may also contain the national choice on the application of informative annexes, see 3.8 for the choices available to NSBs.

- 2.4. The National Annex may contain, directly or by reference, non-contradictory complementary information for ease of implementation, provided it does not alter or contradict any provisions of the Eurocodes.

3. National choices

References to national choices contained in the Eurocodes

- 3.1. A list of sub-clauses containing the Nationally Determined Parameters is provided in clause '0.5 National annex for EN 19xxx-x-x' of each EN Eurocode part for ease of use by NSBs. This clause also provides the list of informative annexes for which national choice may be expressed.
- 3.2. All references to national choices are contained in NOTES to the relevant EN Eurocode Part. Examples of how NDPs are referenced are presented below.

Example of a case where a default value is given in the EN Eurocode Part:

(1) The partial factor $\gamma_{F,fat}$ shall be used for fatigue loads.

NOTE The value of $\gamma_{F,fat}$ is 1.0 unless the National Annex gives a different value.

Example of a case where no default value is given in the EN Eurocode Part:

(1) Testing of grouted anchors shall comply with EN ISO 22477-5 Test Method 1 or Test Method 3.

NOTE: The choice of Method can be given in the National Annex.

Example of default values given in a table contained in the EN Eurocode Part:

NOTE The values of γ_F are given in Table X.X (NDP) unless the National Annex gives different values.

Expressing the national choice

- 3.3. CEN Members are encouraged to use the default choice for the Nationally Determined Parameters where provided by the EN Eurocode Parts. They should diverge from the default choice only where geographical, geological or climatic conditions or specific levels of protection make that necessary and if they consider it necessary in order to ensure that building and civil engineering works are designed and executed in a way that does not endanger the safety of persons, domestic animals or property.
- 3.4. CEN Members may choose to not express a national choice on a particular Nationally Determined Parameter.

NOTE: As stated in clause '0.5 National annex for EN 19xxx-x-x' of each EN Eurocode:

1. When no national choice is given, the default choice given in the standard is to be used;
2. When no national choice is made and no default is given in the standard, the choice can be specified by the relevant authority or, where not specified, agreed for a specific project by appropriate parties.

Additional clarification on tables containing Nationally Determined Parameters

- 3.5. When a table is introduced in a EN Eurocode Part with the expression *Table x.y (NDP) <Title>*, then the NDP is the entire table, which may be changed in full or in part at national level.
- 3.6. The default structure of tables containing Nationally Determined Parameters, which is provided in the relevant EN Eurocode Part, should be used as far as possible to ensure consistency in approach across the CEN Members.
- 3.7. In some special cases, only the values within a table are NDPs. In which case, the complete table should be reproduced in the National Annex with the relevant national values inserted to aid ease of use by designers.

Additional clarification on Informative annexes

- 3.8. In relation to the national choice on the application of an informative annex, a Country may:
 - (i) permit its use,
 - (ii) prohibit its use in full or in part,
 - (iii) stay silent on whether to use it or not.

NOTE 1 In case (i), National Annexes can make an informative annex a national requirement.

NOTE 2 if the National Annex contains no information on the application of an informative annex, it can be used.

- 3.9. In case (ii), the National Annex may replace the informative annex either in full (by introducing a different annex) or in part (with modified / alternative provisions), directly or by reference. In such a case, the replacement annex or modified / alternative provisions shall not contradict the normative text contained in the relevant EN Eurocode Part. The replacement annex should have a unique identification, e.g. "Annex NA.C <Title>".
- 3.10. In case (ii), if a replacement annex or modified / alternative provisions are introduced, these may contain requirements, recommendations and permissions (i.e. use of 'shall', 'should' and 'may'). In all cases, the text should not contain text book material.

4. Publication of National Annexes

- 4.1. The National Annex should be made available separately from the body of the relevant EN Eurocode part so that the National Annex can be obtained without having to purchase the full Eurocode text. The Eurocode and the National Annex can also be made available as a package at the member's discretion. Note: Reference is made to [CEN-CENELEC Guide 28](#) Guidelines for the public access of Eurocodes and their National Annexes and Harmonized European Standards under the Construction Products Regulation [Ref. 3].
- 4.2. Additionally, NSBs may publish integrated and consolidated document(s) (i.e. EN Eurocode part and relevant National Annex provisions) provided that, in line with BT Decision 2/2012 [Ref. 4], such documents are clearly identified as not being a EN Eurocode part.

5. References

- [1] Guidance Paper L (concerning the Construction Products Directive - 89/106/EEC) 'Application and use of Eurocodes' (Version 27 November 2003).
- [2] Commission Recommendation of 11 December 2003 on the implementation and use of Eurocodes for construction works and structural construction products (notified under document number C(2003) 4639), Official Journal of the European Union.
- [3] [CEN-CENELEC Guide 28](#) Guidelines for the public access of Eurocodes and their National Annexes and Harmonized European Standards under the Construction Products Regulation
- [4] CEN BT decision 2/2012

Subject: Implementation of EN 206-1, EN 13670 and EN 13791 (concrete) at national level

BT,

- considering that EN 206-1, EN 13670 and EN 13791 allow for the addition of some specific national provision;
- noting the AFNOR request for derogation from the rules on national implementation for these ENs (Annex 1 to BT N 8867);
- noting the results of the CCMC survey as presented in Annex 2 to BT N 8867;
- confirms the CEN-CENELEC Internal Regulations Part 2, 11.2.6.2 stating that "An EN shall be implemented identical in technical content and presentation ...";
- notes that (an) additional document(s) can be published to make the national provisions in question available in a user-friendly way, e.g. by publishing a separate document at national level including the national provisions, with or without the original text of the EN.

This Resolution is applicable as from: 2012-03-21

[5] CEN BT decision 5/2022

Subject: CEN/TC 250 'Structural Eurocodes' - Guidance on drafting National Annexes for NSBs
BT,

– noting

- the outcome of the discussion at the CEN/BT TCMG meeting of 2022-03-10, including the comments provided to improve the CEN/TC 250 'Structural Eurocodes' guidance document on drafting national annexes for NSBs and the potential conflict between its Clause 4 and CEN-CENELEC Guide 10;
- the revised CEN/TC 250 guidance document (see N 12997 Annex 1);
- the outcome of JCAG consultation by correspondence concluding that there is no conflict between Clause 4 of the CEN/TC 250 guidance document on drafting national annexes for NSBs and CEN-CENELEC Guide 10 since the latter one is related to CEN and CENELEC deliverables only and that national annexes are outside its scope;
- the exceptional need for guidance for this specific sector;

– approves the CEN/TC 250 guidance document on drafting of national annexes for NSBs as presented in Annex 1 and encourages CEN/TC 250 to consider the AFNOR comments for inclusion in future discussions and documents.

This decision is applicable as from: 2022-05-05