

Concept for the Future Development of Eurocode 3 Design of Steel Structures

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Abstract

The presented paper shows an extract of recent work regarding the revision of EN 1993 on European and national level including selected scientific and technical issues and a summary of the activities executed within the European Standardization committee CEN/TC250/SC3 "Design of Steel Structures" under the chair of Prof. Dr.-Ing. Ulrike Kuhlmann. A concept for revision has especially been developed in view of the further developing of Eurocode in the frame of Mandate M/515.

Keywords: Design of Steel Structures; Eurocode; Code Revision.

1 Introduction

EN 1993 "Design of Steel Structures" consisting of all in all 20 parts presents a considerably large and partially complex code system that is important for the steel construction practice. First experiences of application of the series of standards and the elaboration of the National Annexes (NAs) showed that, in terms of a practice-oriented application, a certain revision and harmonisation is required and still existing ambiguities should be erased by corrections as quickly as possible.

This shows the requirement to work towards a coordinated approach in revising Eurocode 3 because of the high amount of its different general and application parts. Only thus, the user-friendliness of the Eurocode 3 as required by the principles of the EU-Mandate and CEN/TC250 can be achieved in the long run. The following principles have been defined for the further evolution of Eurocode 3:

- keep the overall structure of EN 1993 and its parts,
- improve the clarity,
- simplify and harmonize rules (same format, structure, notations,..),
- harmonize different parts of Eurocode 3 and if possible also with other relevant Eurocodes.
- reduce the overall volume (e.g. by avoiding informative annexes) and
- reduce number of alternatives.

For the future work which is affected by the general revision under the scope of the call for the "Systematic Review" and the works for the EU-Mandate M/515, it is essential to pursue this approach.