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General principles on reliability for structures — Vocabulary

Principes généraux de la fiabilité des constructions — Vocabulaire

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives)

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html

This document was prepared by Technical Committee ISO/TC 98, *Bases for design of structures*, Subcommittee SC 01, *Terminology and symbols.*

This second edition cancels and replaces the first edition (ISO 8930:1987), which has been technically revised.

The main changes compared to the previous edition are as follows:

— terms and definitions from the revised ISO 2394:2015 have been updated;

— terms and definitions from all other TC98 standards have been added;

— languages other than English have been deleted.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html

General principles on reliability for structures — Vocabulary

1 Scope

This document establishes the common vocabulary of the principal terms used in the field of reliability of structures and design actions used within ISO TC98 documents on bases for design of structures.

2 Normative references

There are no normative references in this document

3 Terms and definitions

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1 General

3.1.1
assessment
total set of activities performed in order to verify the *reliability* (3.2.19) of an existing *structure* (3.1.31)

[SOURCE: ISO 2394:2015, 2.1.12]

3.1.2
compliance
fulfilment of specified *requirements* (3.1.23)

[SOURCE: ISO 2394:2015, 2.1.6]

3.1.3
component
part of the *structure* (3.1.31) and non-structural part that can affect the *durability* (3.5.2) of the structure

[SOURCE: ISO 13823:2008, 3.6, modified — "any" has been deleted and "may" has been changed to "can".]

3.1.4
consumer
participant of the building process purchasing a *lot* (3.10.18) for further procedure or use

[SOURCE: ISO 12491:1997, 3.47, modified — "any" has been deleted.]

3.1.5
cultural resource
structure (3.1.31), building, landscape, archaeological site, or other engineering works, that have been formally recognized for its *heritage value* (3.12.7)

[SOURCE: ISO 13822:2010, I.3.3]

3.1.6
design service life
service life (3.1.25) specified in design for which a *structure* (3.1.31) or a *structural member* (3.1.30) is used for its intended purpose with planned maintenance, but without substantial *repair* (3.1.22) being necessary

Note 1 to entry: Design service life is also called design working life.

3.1.7
estimation
operation of assigning, from observations on a sample, numerical values to the parameters of a distribution chosen as the statistical model of the *population* (3.1.18) from which this sample was taken

[SOURCE: ISO 12491:1997, 3.22]

3.1.8
geotechnical work
work that includes soil or *rock* (3.1.24) as primary *components* (3.1.3) with or without structural parts made of concrete, steel, or other materials

[SOURCE: ISO 23469:2005, 3.24]

3.1.9
heritage structure
existing *structure* (3.1.31) or structural *component* (3.1.3) of a heritage resource that has been recognized by the appropriate authorities for its *heritage value* (3.12.7)

[SOURCE: ISO 13822:2010, I.3.6]

3.1.10
inspection
on-site examination within the scope of *quality control* (3.1.20) and condition *assessment* (3.1.1) aiming to assess the present condition of a *structure* (3.1.31)

[SOURCE: ISO 2394:2015, 2.1.17]

3.1.11
investigation
collection and evaluation of information through *inspection* (3.1.10), document search, *load testing* (3.8.3.9) and other testing

[SOURCE: ISO 13822:2010, 3.6]

3.1.12
life cycle
process of life incorporating initiation, project definition, design, construction, commissioning, operation, maintenance, refurbishment, replacement, deconstruction, and ultimate disposal, recycling, or re-use of the *structure* (3.1.31) (or parts thereof), including its *components* (3.1.3), *systems* (3.1.32), and building services

[SOURCE: ISO 2394:2015, 2.1.7]

3.1.13
life cycle maintenance
combination of all technical and associated administrative *actions* (3.6.1.2) during a *component*'s (3.1.3) *service life* (3.1.24) with the aim of retaining it in a state in which it can perform its required functions

[SOURCE: ISO 13823:2008, 3.15, modified — the term has been changed from "maintenance" to "life cycle maintenance".]

3.1.14
model
simplified conceptual or mathematical idealization or test set-up simulating the *structure environment* (3.5.5), *transfer mechanisms* (3.5.4), *environmental action* (3.6.1.8), *action effects* (3.6.13.1) and structural behaviour that can lead to *failure* (3.8.1.1)

[SOURCE: ISO 13823:2008, 3.16]

3.1.15
monitoring
frequent or continuous, normally long-term, observation or measurement of structural conditions or *actions* (3.6.1.2) or structural response

[SOURCE: ISO 2394:2015, 2.1.16]

3.1.16
parapet
low wall built along the *crest* (3.6.7.5) of a seawall

[SOURCE: ISO 21650:2007, 2.44]

3.1.17
pipeline
long tube or a network of tubing used for the transportation of fluid, gas, or solid mixed with fluid or gas

[SOURCE: ISO 23469:2005, 3.40]

3.1.18
population
totality of units under consideration for which the same probabilistic descriptions (mean values, etc.) are valid

[SOURCE: ISO 2394:2015, 2.1.22, modified — "set of entities" has been changed to " totality of units".]

3.1.19
producer
participant of the building process supplying a *lot* (3.10.18) for further procedure or use

[SOURCE: ISO 12491:1997, 3.46, modified — "any" has been deleted.]

3.1.20
quality control
activities to control quality of design, execution, use, and decommissioning of a *structure* (3.1.31)

[SOURCE: ISO 2394:2015, 2.1.28]

3.1.21
rehabilitation
repairing (3.1.22) or upgrading of an existing *structure* (3.1.31)

[SOURCE: ISO 2394:2015, 2.1.15]

3.1.22
repair
restoring the condition of a *structure* (3.1.31) that has been damaged or deteriorated

[SOURCE: ISO 2394:2015, 2.1.14, modified — "(of a structure)" has been delete from the term.]