NATIONAL ANNEX TO CYS EN 1998-3:2005 (Including AC:2013)

Eurocode 8: Design of structures for earthquake resistance

Part3: Assessment and retrofitting of buildings

CYPRUS ORGANISATION FOR STANDARDISATION

NATIONAL ANNEX

TO

CYS EN 1998-3:2005 (Including AC:2013)

Eurocode 8: Design of structures for earthquake resistance Part3: Assessment and retrofitting of buildings

This National Annex has been approved by the Board of Directors of the Cyprus Organisation for Standardisation (CYS) on 12.07.2019.

INTRODUCTION

This National Annex has been prepared by the CYS TC 18 National Standardisation Technical Committee of Cyprus Organisation for Standardisation. (CYS)

NA 1 SCOPE

This National Annex is to be used together with CYS EN 1998-3:2005 including AC:2013. Any reference in the rest of this text to CYS EN 1998-3:2005 means the above document

This National Annex gives:

(a) Nationally determined parameters for the following clauses of CYS EN 1998-3:2005 where National choice is allowed (see Section NA 2)

- 1.1 (4)
- 2.1 (2)P
- 2.1 (3)P
- 2.2.1 (7)P
- 3.3.1 (4)
- 3.4.4 (1)
- 4.4.2 (1)P
- 4.4.4.5 (2)P
- A.4.4.2 (5)
- A.4.4.2 (9)

(b) Decisions on the use of the Informative Annexes A, B and C (see Section NA 3)

(c) References to non-contradictory complementary information to assist the user to apply CYS EN 1998-3:2005 (see Section NA 4).

NA 2 NATIONALLY DETERMINED PARAMETERS

NA 2.1 Clause 1.1 (4) Scope of CYS EN 1998-3:2005

Informative Annex A, Informative Annex B and Informative Annex C of CYS EN 1998-3:2005 may be used as Informative Annexes.

NA 2.2 Clause 2.1 Fundamental requirements

(2)P Buildings of importance class IV (as defined in Table 4.3 of CYS EN 1998-1:2004) should be checked for all three Limit States defined in 2.1(1)P of CYS EN 1998-3:2005. For the other importance classes the number of limit states to be checked shall be agreed between the owner and the designer.

(3)P The return periods specified for the various Limit States shall be agreed between the owner and the designer. The protection normally considered appropriate for ordinary new buildings is considered to be achieved by selecting the following values for the return periods: 2.475 years, corresponding to a probability of exceedance of 2% in 50 years for the LS of Near Collapse (NC), 475 years, corresponding to a probability of exceedance of 10% in 50 years for the LS of significant Damage (SD), and 225 years, corresponding to a probability of exceedance of 20% in 50 years for the LS of Damage Limitation (DL).

NA 2.3 Clause 2.2.1 (7)P General

The values of the partial factors specified in clauses 5.2.4(3), 6.1.3(1), 7.1.3(1) and 9.6(3) of CYS EN1998-1:2004 and its national annex should be used in the calculation of strength capacities of brittle "primary seismic" elements.

NA 2.4 Clause 3.3.1 (4) Knowledge levels – Definition of knowledge levels

Table 3.1 (CYS) defines values for the symbols of Table 3.1 of CYS EN 1998-3:2005.

Table 3.1 (CYS): Recommended minimum requirements for different levels of inspection and testing

Knowledge Level	Geometry	Details	Materials	Analysis	CF
KL1	From original outline construction drawings with sample **visual** survey **or** from **full** survey	Simulated design in accordance with relevant practice **and** from **limited** in-situ inspection	Default values in accordance with standards of the time of construction **and** from **limited** in-situ testing	LF-MRS	1,35
KL2		From incomplete original detailed construction drawings with **limited** in-situ inspection **or** From **extended** in-situ inspection	From original design specifications with **limited** in-situ testing **or** from **extended** in-situ testing	ALL	1,20
KL3		From original detailed construction drawings with **limited** in-situ inspection **or** from **comprehensive** in-situ inspection	From original test reports with **limited** in-situ testing **or** from **comprehensive** in-situ testing	ALL	1,00

NA 2.5 Clause 3.4.4 (1) Definition of the levels of inspection and testing

Table 3.2 (CYS) provides the minimum values for the amount of inspection and testing to be used.

Table 3.2 (CYS): Recommended minimum requirements for different levels of inspection and testing

	Inspection (of details)	Testing (of materials)
	For each type of primary element (beam, column, wall):	
Level of inspection and testing	Percentage of elements that are checked for details	Material samples per floor
Limited	20	1
Extended	50	2
Comprehensive	80	3

NA 2.6 Clause 4.4.2 (1)P Lateral force analysis

The value of the ratio ρ_{max}/ρ_{min} is specified as 2,5.

NA 2.7 Clause 4.4.4.5 (2)P Procedure for estimation of torsional and higher mode effects

No reference to complementary non-contradictory information is made

NA 2.8 Clause A.4.4.2 Shear Strength

(5) The value defined for the partial factor for FRP debonding, γ_{fd}, is 1,5(9) The value defined for the partial factor for FRP, γ_{fd}, is 1,5

NA 3 DECISION ON USE OF THE INFORMATIVE ANNEXES A AND B

NA 3.1 Annex A

Annex A may be used

NA 3.2 Annex B

Annex B may be used

NA 3.3 Annex C

Annex C may be used

NA 4 REFERENCES TO NON-CONTRADICTORY COMPLEMENTARY INFORMATION

None

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NA to CYS EN 1998-3:2005 (Including AC:2013)

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