

NATIONAL ANNEX

UK National Annex to Eurocode 8: Design of structures for earthquake resistance –

Part 1: General rules, seismic actions and rules for buildings

ICS 91.120.25



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National Annex (informative) to BS EN 1998-1:2004, Eurocode 8: Design of structures for earthquake resistance – Part 1: General rules, seismic actions and rules for buildings

Introduction

This National Annex has been prepared by BSI Subcommittee B/525/8, *Structures in seismic regions*. In the UK it is to be used in conjunction with BS EN 1998-1:2004.

NA.1 Scope

This National Annex gives:

- a) the UK decisions for the Nationally Determined Parameters described in the following subclauses of BS EN 1998-1:2004:

2.1(1)P	5.2.2.2(10)	7.1.3(4)
2.1(1)P	5.2.4(1),(3)	7.7.2(4)
3.1.1(4)	5.4.3.5.2(1)	8.3(1)
3.1.2(1)	5.8.2(3)	9.2.1(1)
3.2.1(1),(2),(3)	5.8.2(4)	9.2.2(1)
3.2.1(4)	5.8.2(5)	9.2.3(1)
3.2.1(5)	5.11.1.3.2(3)	9.2.4(1)
3.2.2.1(4), 3.2.2.2(1)P	5.11.1.4	9.3(2)
3.2.2.3(1)P	5.11.1.5(2)	9.3(2)
3.2.2.5(4)P	5.11.3.4(7)e)	9.3(3)
4.2.3.2(8)	6.1.2(1)	9.3(4), Table 9.1
4.2.4(2)P	6.1.3(1)	9.3(4), Table 9.1
4.2.5(5)P	6.2(3)	9.5.1(5)
4.3.3.1(4)	6.2(7)	9.6(3)
4.3.3.1(8)	6.5.5(7)	9.7.2(1)
4.4.2.5(2)	6.7.4(2)	9.7.2(2)b)
4.4.3.2(2)	7.1.2(1)	9.7.2(2)c)
5.2.1(5)	7.1.3(1),(3)	9.7.2(5)
		10.3(2)P

- b) the UK decisions on the status of BS EN 1998-1:2004 informative annexes; and
- c) references to non-contradictory complementary information.

NA.2 Nationally Determined Parameters

UK decisions for the Nationally Determined Parameters described in BS EN 1998-1:2004 are given in Table NA.1.

Table NA.1 UK values for Nationally Determined Parameters described in BS EN 1998-1:2004

Subclause	Nationally Determined Parameter	Eurocode recommendation	UK decision
2.1(1)P	Reference return period T_{NCR} of seismic action for the no-collapse requirement (or, equivalently, reference probability of exceedance in 50 years, P_{NCR}).	$T_{\text{NCR}} = 475$ years $P_{\text{NCR}} = 10\%$	In the absence of a project-specific assessment, adopt a return period T_{NCR} of 2 500 years. Further guidance is given in PD 6698.
2.1(1)P	Reference return period T_{DLR} of seismic action for the damage limitation requirement (or, equivalently, reference probability of exceedance in 10 years, P_{DLR}).	$T_{\text{DLR}} = 95$ years $P_{\text{DLR}} = 10\%$	In the absence of a project-specific assessment, adopt the recommended values. Further guidance is given in PD 6698.
3.1.1(4)	Conditions under which ground investigations additional to those necessary for design for non-seismic actions may be omitted and default ground classification may be used.	[None]	The need for additional ground investigations should be established on a site-specific basis. Further guidance is given in PD 6698.
3.1.2(1)	Ground classification scheme accounting for deep geology, including values of parameters S , T_{B} , T_{C} and T_{D} defining horizontal and vertical elastic response spectra in accordance with BS EN 1998-1:2004, 3.2.2.2 and 3.2.2.3.	[None]	There is no requirement to account for deep geology. Further guidance is given in PD 6698.
3.2.1(1),(2),(3)	Seismic zone maps and reference ground accelerations therein.	[None]	In the absence of a project-specific assessment, adopt the reference ground accelerations for a return period T_{NCR} of 2 500 years given by the seismic contour map in PD 6698.
3.2.1(4)	Governing parameter (identification and value) for threshold of low seismicity.	$a_{\text{g}} \leq 0,78 \text{ m/s}^2$ or $a_{\text{g}} S \leq 0,98 \text{ m/s}^2$	$a_{\text{g}} \leq 2 \text{ m/s}^2$ (for $T_{\text{NCR}} = 2\,500$ years)
3.2.1(5)	Governing parameter (identification and value) for threshold of very low seismicity.	$a_{\text{g}} \leq 0,39 \text{ m/s}^2$ or $a_{\text{g}} S \leq 0,49 \text{ m/s}^2$	$a_{\text{g}} \leq 1.8 \text{ m/s}^2$ (for $T_{\text{NCR}} = 2\,500$ years)