NA+A1:2014 to BS EN 1991-1-7:2006+A1:2014

Incorporating corrigenda August 2014 and November 2015

BSI Standards Publication

National Annex to Eurocode 1: Actions on structures –

Part 1-7: Accidental actions

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National Annex (informative) to BS EN 1991-1-7:2006+A1:2014, Eurocode 1: Actions on structures – Part 1-7: Accidental actions

Introduction

This National Annex has been prepared by BSI Subcommittee B/525/1, Actions (loadings) and basis of design [A1] and it is designed in the UK to be used in conjunction with BS EN 1991-1-7:2006+A1:2014 [A1].

The start and finish of text introduced or altered by national amendment A1:2014 is indicated in the text by [A1] [A1].

*NOTE This National Annex refers to design values for accidental actions. In the UK National Annexes to BS EN 1990:2002+A1:2005 Annex A1 and Annex A2, the safety factors for accidental actions are equal to 1. Therefore the nominal value and the design value for accidental actions are numerically the same. The nominal values and design values of an action are defined in [A1] BS EN 1990:2002+A1:2005 [A1] **1.5.2.2** and **1.5.3.21** respectively.*

NA.1 Scope

This National Annex gives:

a) the UK decisions for the Nationally Determined Parameters described in the following subclauses of [A1] BS EN 1991-1-7:2006+A1:2014 [A1]:

- **2** (2)
- **3.1** (2)
- **3.2** (1)
- **3.3** (2)
- **3.4** (1)
- **3.4** (2)
- **4.1** (1)
- **4.3.1** (1)
- **4.3.1** (2)
- **4.3.1** (3)
- **4.3.2** (1)
- **4.3.2** (2)
- **4.3.2** (3)
- **4.4** (1)
- **4.5** (1)
- **4.5.1.2** (1)
- **4.5.1.4** (1)
- **4.5.1.4** (2)
- **4.5.1.4** (3)
- **4.5.1.4** (4)
- **4.5.1.4** (5)
- **4.5.1.5** (1)
- **4.5.2** (1)
- **4.5.2** (4)
- **4.6.1** (3)
- **4.6.2** (1)
- **4.6.2** (2)
- **4.6.2** (3)
- **4.6.2** (4)
- **4.6.3** (1)
- **4.6.3** (3)
- **4.6.3** (4)
- **4.6.3** (5)
- **5.3** (1)P
- **A.4** (1)

b) the UK decisions on the status of [A1] BS EN 1991-1-7:2006+A1:2014 [A1] informative annexes; and

c) references to non-contradictory complementary information.

NA.2 Nationally Determined Parameters

NA.2.1 Classification of accidental actions [[A1] BS EN 1991-1-7:2006+A1:2014 [A1], 2 (2)]

All accidental actions are free actions unless otherwise stated in the individual project.

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NA.2.2 Notional values for identified accidental actions [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 3.1 (2) Note 4]

Values for accidental actions should be as given in BS EN 1991-1-7:2006+A1:2014 and this National Annex.

NA.2.3 Level of acceptable risk [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 3.2 (1) Note 3]

The level of acceptable risk should be determined on a project specific basis. Recommendations for acceptable risk levels for road, footway and cycletrack bridges, are contained in PD 6688-1-7.

NA.2.4 Model of accidental action [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 3.3 (2) Note 1]

For building structures the recommended model should be used.

NA.2.5 Acceptable limit of localised failure [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 3.3 (2) Note 2]

For building structures, the indicative limits should be used. See **A.4** of BS EN 1991-1-7:2006+A1:2014.

〉A1 *Text deleted* 〈A1

NA.2.6 Design approach for limiting the extent of localized failure [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 3.3 (2) Note 3]

For the design of building structures the three approaches given in **3.3** (2) of BS EN 1991-1-7:2006+A1:2014 may be used as appropriate and as specified in Annex A of BS EN 1991-1-7:2006+A1:2014.

NA.2.7 Consequence classes [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 3.4 (1) Note 4]

For the design of building structures the categorization given in Table A.1 of Annex A of BS EN 1991-1-7:2006+A1:2014 should be used.

NA.2.8 Design approaches [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 3.4 (2) Note]

For the design of structures for higher and lower consequence classes, the requirements should be determined for the individual project.

NA.2.9 Accidental actions on lightweight structures [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 4.1 (1) Note 1]

Recommendations for accidental actions on lightweight road structures are given in PD 6688-1-7.

NA.2.10 Impact forces to foundations [〉A1 BS EN 1991-1-7:2006+A1:2014 〈A1, 4.1 (1) Note 3]

Recommendations for transmission of impact forces to foundations are given in PD 6688-1-7.

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