

Code of practice for  
CONCRETE STRUCTURES FOR THE  
STORAGE OF LIQUIDS

Pr AA

## AMENDMENT No. 1

April 1990

**EXPLANATORY NOTE - Amendment No. 1 corrects minor errors and updates related documents.**

To ensure receiving advice of the next amendment to NZS 3106:1986 please complete and return the amendment request form.

**DECLARATION**

Amendment No. 1 was declared on 27 April 1990 by the Standards Council to be an amendment to NZS 3106:1986 pursuant to the provisions of section 10 of the Standards Act 1988.

(Amendment No. 1, April 1990)

**RELATED DOCUMENTS**

After "NZS 1900:- - - Model building bylaw" **add** "Division 11.1:1986 Structures for the storage of liquids".

**Delete** "NZS 3109:1980" and **substitute** "NZS 3109:1987".

**Delete** "NZS 3402P:1973 Hot rolled steel bars for concrete reinforcement" and **substitute** "NZS 3402:1989 Steel bars for the reinforcement of concrete".

**Delete** "BS 4102:1971 Steel wire for fences" and **substitute** "BS 4102:1986 Steel wire and wire products for fences".

**Delete** "BS 5337:1976 The structural use of concrete for retaining aqueous liquids" and **substitute** "BS 8007:1987 Design of concrete structures for retaining aqueous liquids".

(Amendment No. 1, April 1990)

**1.1****Scope**

In clause 1.1.1, **delete** the last words "the relevant requirements of NZS 1900", and **substitute** "the requirements of NZS 1900, Division 11.1".

(Amendment No. 1, April 1990)

**1.5****Notation**

In clause 1.5.1, after " $W_c$ " **add** " $W_L$  The weight of the tank contents, N."

The fourth symbol from the end: **Delete** " $\lambda_L$ " and **substitute** " $\gamma_L$ ".

(Amendment No. 1, April 1990)

**2.2****Design loads**

In clause 2.2.8.2(b), **delete** "50 °C and **substitute** "5 °C".

In clause 2.2.9.5, **delete** the last line "for a rectangular tank  $\beta = 2b$ " and **substitute** "for a rectangular tank  $\beta = 4b$ ".

In commentary clause C2.2.9.6, equation C2-9, in the numerator of the fraction, **change** " $M'_{BI}$ " to  $M_{BI}$ ".

In fig. C2.5 (also subject to erratum of March 1987) **make the same change** at the left hand ordinate.

(Amendment No. 1, April 1990)

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**3.2****Concrete**

In commentary clause C3.2.4, in line 7 and in the last line **delete** "BS 5337" and **substitute** "BS 8007".

In commentary clause C3.2.6, equation C3-2, **delete** " $f_c$ " and **substitute** " $\sqrt{f_c}$ ".

(Amendment No. 1, April 1990)

**3.4****Non-prestressed reinforcement**

In clause 3.4.1, **delete** "NZS 3402P" and **substitute** "NZS 3402".

(Amendment No. 1, April 1990)

**4.2****Concrete placing**

In commentary clause C4.2.3, paragraph 6, **delete** "BS 5337" and **substitute** "BS 8007".

In paragraph 9, **delete** "Appendix D of BS 5337" and **substitute** "Appendix C of BS 8007".

(Amendment No. 1, April 1990)

**5.1****General**

In commentary clause C5.1.3, **delete** "BS 5337" and **substitute** "BS 8007".

(Amendment No. 1, April 1990)

**5.2****Stiffness of cracked section**

In commentary clause C5.2, paragraph 1, line 6, **delete** "effect" and **substitute** "affect".

(Amendment No. 1, April 1990)

**5.4****Reinforcing steel stresses**

In commentary clause C5.4.1, line 6, **delete** "BS 5337" and **substitute** "BS 8007".

In line 7, **delete** ACI 350R-77 and **substitute** ACI 350R-83.

(Amendment No. 1, April 1990)

**6.3****Allowable stresses**

In figure C6.1, to the title of diagram (a), **add** "(plan view)".

In commentary clause C6.3.3, in the expression immediately above fig. C6.2, **delete** "00" and **substitute** "∞".

(Amendment No. 1, April 1990)

**APPENDIX B**

In B2 Worked example, in the fourth line on page 77, **delete** the denominator of the fraction, "3F" and **substitute** "3EI".

(Amendment No. 1, April 1990)