ERRATA

Design of Liquid-Containing Structures for Earthquake Forces

Portland Cement Association, 2002

Chapter 4

4.7.1 Rectangular Tanks (page 17)

K is based on per unit width of the wall

4.9 FREEBOARD (page 20)

IBC 2000 Method

Delete 1.4 from denominator of the following to read as follows:

$$d_{\max} = \frac{S_{D1}}{T_C} I\left(\frac{L}{2}\right) \qquad \text{For Rectangular Tanks}$$

$$d_{\max} = \frac{S_{D1}}{T_C} I\left(\frac{D}{2}\right) \qquad \text{For Circular Tanks}$$

UBC '97 Method

Delete 1.4 from denominator of the following to read as follows:

$$d_{\max} = \frac{C_V}{T_C} I\left(\frac{L}{2}\right) \qquad \text{For Rectangular Tanks}$$

$$d_{\max} = \frac{C_V}{T_C} I\left(\frac{D}{2}\right) \qquad \text{For Circular Tanks}$$

Chapter 7

Example 1 – Design of Rectangular Concrete Tank (page 35)

Vertical acceleration effects are not included in this example. See 3.1.4 Seismic Load Effect (Page 6, Chapter 3).

7.3.2 **Period** (page 36)

K is based on per unit width of the wall

$$K = \frac{3834}{48}\left(\frac{18}{4.2}\right)^3 = 6{,}290 \text{ kips/ft per foot width}$$

$$T_I = 2\pi\sqrt{\frac{369.7}{32.2x6{,}290 \times 21.5}} = 0.06\,\text{sec}$$

7.3.3 **Base Shear** (page 36)

Correct C_{SI} for $T_I = 0.06$ (see 7.3.2 above)

$$C_{SI} = \frac{0.73x1.0}{2} = 0.37 \le \frac{0.42x1}{2x0.06} = 3.5, \qquad \text{Use } 0.37$$

Chapter 8

Example 2 – Design of Circular Concrete Tank (page 45)

Vertical acceleration effects are not included in this example. See 3.1.4 Seismic Load Effect (Page 6, Chapter 3).