

**Date of Issue:** January 2021

**Affected Publication:** Standard 650, Welded Tanks for Oil Storage, March 2020

## Errata 1

*Section 2: In the ASTM C509 reference, the word “Electrometric” shall be replaced with “Elastomeric”.*

*Section 2: In the U.S. Federal Specifications. TT-S-00230C reference, the word “Electrometric” shall be replaced with “Elastomeric”.*

*Section 2: In Footnote 9), the address for American Welding Society shall be replaced with the following:*

8669 N.W. 36th Street, No. 130, Miami, Florida 33166-6672

*Section 3.30: In the header, the term "self-anchored tan" shall be replaced with the following:*

**self-anchored tank**

*Figure 5.12: In “Detail a” of the figure, 175 mm (5 in.) shall be changed to 125 mm (5 in.).:*

*Section 5.8.5.3: In item a), the statement “in calculating limitations per F.4.2, use  $M = 0$ ” shall be replaced with the following:*

use  $M_w$  or  $M_{WS} = 0$

*Section 5.9.5.3: In the USC units section, the equation shall be changed to the following:*

$$Z = \frac{1.5}{0.5F_y} H_2 D^2 \left( \frac{P_{wd}}{36} \right)$$

*Section 5.9.5.3: In the USC units section, in the equation key, the following shall be added:*  
:

$P_{wd}$  is design wind pressure including inward drag =  $P_{ww} + 5$  in (lb/ft<sup>2</sup>);

$P_{ww}$  is wind pressure at 33 ft above ground per applicable building code considering all applicable factors, such as gust factor, exposure factor, height factor, importance factor, in (lb/ft<sup>2</sup>); or

$P_{ww}$  is wind pressure =  $31 (V/120)^2$  in (lb/ft<sup>2</sup>) where design wind speed (V) is used.

*Section 5.9.6.1: In the USC units equation,  $\left( \frac{36}{P_{wd}} \right)^2$  shall be replaced with the following:*

$$\left( \frac{36}{P_{wd}} \right)$$

*Section 5.9.6.1: In the SI units section, in the equation key, the bullet in the margin next to  $t$  shall be deleted.*

Section 5.10.2.1: The section shall be changed to the following:

**Loads:** All roofs and supporting structures shall be designed for load combinations identified in 5.2.2 (a), (b), (c), (e), (f), and (g).

Section 7.3.7.6: The “Water Filling Rate” table shall be changed to the following:

Water Filling Rate		
Bottom Course Thickness	Tank Portion	Maximum Filling Rate
Less than 22 mm ( $\frac{7}{8}$ in.)	– Top course	300 mm (12 in.)/hr
	– Below top course	460 mm (18 in.)/hr
22 mm ( $\frac{7}{8}$ in.) and thicker	– Top third of tank	230 mm (9 in.)/hr
	– Middle third of tank	300 mm (12 in.)/hr
	– Bottom third of tank	460 mm (18 in.)/hr

Figure F.1: The decision point of “Provide anchors and conform to F.7.” shall be changed to the following:

Provide anchors and conform to F.8.

Section V.3.1: In the USC units section, in the equation key, the bullet in the margin next to V shall be deleted.: