Frequently Asked Question for Method 2

Is there an error in the latest version of Equation 2-7 for calculating stack gas velocity?

There is an error in a term in Equation 2-7. The square root of the average Δp currently listed in the CFR should be the average of the square roots of the individual Δp's as correctly listed below:

12.6 Average Stack Gas Velocity.

$$V_s = K_p\, C_p \left(\frac{1}{n}\sum_{i=1}^{n}\sqrt{\overline{\Delta p_i}}\right)\sqrt{\frac{T_{s(avg)}}{P_s M_s}} \qquad Eq.2-7$$

Where:

$$K_p = 34.97\, \frac{m}{\sec}\left[\frac{(g/g-mole)(mm\ Hg)}{(^oK)(mm\ H_2O)}\right]^{1/2} \qquad Metric$$

$$= 85.49\, \frac{ft}{\sec}\left[\frac{(lb/lb-mole)(in.\ Hg)}{(^oR)(in.\ H_2O)}\right]^{1/2} \qquad English$$