Interactive comment on “Derivation of Flow Rate and Calibration Method for High-Volume Air Samplers” by Richard Hann and Mark Hermanson

Tsai

cjtsai@nctu.edu.tw

Received and published: 1 December 2018

The main focus of this article is to use the standard flow rate for a hi-vol sampler. Calibration equations are proposed for the orifice type flow meters. However, the correct flow rate to run a pre-separator, PM inlet, is the actual flow rate since the Stokes number depends on flow velocity. In addition, the PM concentration of the aerosols that one breathes is at the actual field conditions and the concentration should also be actual value. Therefore, I disagree with the idea of converting PM concentration into standard concentration based on the standard flow rate which may jeopardize the cut-off characteristic of the pre-separator, also the actual PM that one exposes maybe compromised.