INTERPRETATION IC 62.1-2022-7 OF
ANSI/ASHRAE STANDARD 62.1-2022
VENTILATION AND ACCEPTABLE INDOOR AIR QUALITY

Approved: February 9, 2025

Request from: Cara Cywinski, AirBox, 2668 Peachtree Rd., Statesville, NC 28625.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.1-2022, Section 7.3, regarding inorganic compound and PM2.5 monitoring.

Background: Section 7.3.1 states the following: "7.3.1 Objective Evaluation. Perform design compound (DC) and PM2.5 measurement in the completed building to verify that design limits (DLs) are met. The peak concentration over an 8-hour occupied period shall not exceed the DL for carbon monoxide.

For ozone and PM2.5, the average concentration measured over an 8-hour occupied period shall not exceed the DL."

The standard does not clarify whether the 8-hour occupied period measurements of ozone, carbon monoxide, and PM2.5 must be continuous. In large buildings where multiple sampling points are required, continuous measurements at each point for an 8-hour period would significantly extend the sampling duration and cost over several days. Given that the requirement focuses on determining the average and peak concentrations of the specified contaminants over an 8-hour occupied period, periodic measurements—such as 10-15 minutes at each location every hour—would be sufficient to obtain a reliable representation of the readings.

For example, in a school with five sampling locations, we could start by measuring for 10 minutes at location 1, move to location 2 for another 10 minutes, and continue this rotation throughout the 8-hour period. The suggested sampling time does not include the time required for the device to acclimate to the new location and the time needed to set up the sensor. This approach not only offers cost savings but also allows all locations to be sampled within the same day, enhancing the comparability of the air quality data by avoiding potential variations in outdoor pollution that could occur on different days.

Interpretation No.1: The 8-hour occupied measurement period for ozone, PM2.5, and CO can be conducted by taking periodic 10-minute measurements every hour throughout the entire 8-hour period at each location, with additional time allowed separately for the device to acclimate to the new location and for setting up the sensor.

Question No.1: Is this interpretation correct?

Answer No.1: Yes

Comments No.1: Standard 62.1-2022 does not specify the appropriate interval duration for sampling and the Standard does not require continuous monitoring throughout the entire 8-hour occupancy period.

Interpretation No.2: The 8-hour occupied measurement period for ozone, PM2.5, and CO can be conducted by taking periodic 15-minute measurements every hour throughout the entire 8-hour period at each location, with additional time allowed separately for the device to acclimate to the new location and for setting up the sensor.

Question No.2: Is this interpretation correct?

Answer No.2: Yes

Comments No.2: Standard 62.1-2022 does not specify the appropriate interval duration for sampling and the Standard does not require continuous monitoring throughout the entire 8-hour occupancy period.