Outdoor air delivery monitoring

EQc1 | Possible 1 point

Intent

To provide capacity for ventilation system monitoring to help sustain occupant comfort and well-being.

Requirements

Install permanent monitoring systems that provide feedback on ventilation system performance to ensure that ventilation systems maintain design minimum requirements. Configure all monitoring equipment to generate an alarm when the airflow values or carbon dioxide (CO_2) levels vary by 10% or more from the design values via either a building automation system alarm to the building operator or a visual or audible alert to the building occupants.

AND

Case 1. Mechanically ventilated spaces

Monitor CO_2 concentrations within all densely occupied spaces i.e., those with a design occupant density of 25 people or more per 1,000 square feet (95 square meters). CO_2 monitors must be between 3 and 6 feet (between 1 and 2 meters) above the floor.

Provide a direct outdoor airflow measurement device capable of measuring the minimum outdoor air intake flow with an accuracy of plus or minus 15% of the design minimum outdoor air rate, based on the value determined in IEQ Prerequisite 1: Minimum Indoor Air Quality Performance, for mechanical ventilation systems where 20% or more of the design supply airflow serves non-densely occupied spaces.

Case 2. Naturally ventilated spaces

Monitor CO_2 concentrations within all naturally ventilated spaces. CO_2 monitors must be between 3 and 6 feet feet (between 1 and 2 meters) above the floor. One CO_2 sensor may be used to monitor multiple nondensely occupied spaces if the natural ventilation design uses passive stack(s) or other means to induce airflow through those spaces equally and simultaneously without intervention by building occupants.