LEED O+M: Warehouses and Distribution Centers | v4

Enhanced indoor air quality strategies

Possible 2 points

Glossary

Intent

To promote occupants' comfort, well-being, and productivity by improving indoor air quality.

Requirements

Option 1. Entryway systems (1 point)

Establishment

Have in place permanent entryway systems at least 10 feet (3 meters) long in the primary direction of travel to capture dirt and particulates entering the building at regularly used exterior entrances. Acceptable entryway systems include permanently installed grates, grilles, slotted systems that allow for cleaning underneath, rollout mats, and any other materials manufactured as entryway systems with equal to or better performance. Maintain all on a weekly basis.

Buildings are not required to provide entryway systems at doors leading from the exterior to the loading dock/garage, but must provide them between these spaces and adjacent office areas.

Performance

Confirm that entryway systems have been maintained on a weekly basis.

Option 2. Additional enhanced IAQ strategies (1 point)

Comply with the requirements of at least one of the following.

Filtration for mechanically ventilated spaces

Establishment

Each ventilation system that supplies outdoor air to occupied spaces must have particle filters or air cleaning devices. These filters or devices must meet one of the following filtration media requirements:

- minimum efficiency reporting value (MERV) of 13 or higher, in accordance with ASHRAE Standard 52.2–2007;
- Class F7 or higher as defined by CEN Standard EN 779–2002, Particulate Air Filters for General Ventilation, Determination of the Filtration Performance

Establish a regular schedule for maintenance and replacement of filtration media according to the manufacturer's recommended interval.

Performance

Follow the schedule for maintenance and replacement of filtration media.

Carbon Dioxide Monitors

Establishment

Have in place CO_2 monitors in all densely occupied spaces. Rooms smaller than 150 square feet (14 square meters) are exempt. CO_2 monitors must be between 3 and 6 feet (900 and 1 800 millimeters) above the floor.

Configure the system to generate a visual alarm to the system operator if the differential CO_2 concentration in any zone rises more than 15% above that corresponding to the minimum outdoor air rate required in the ventilation section of EQ Prerequisite Minimum Indoor Air Quality Performance.

Test and calibrate CO_2 sensors to have an accuracy of no less than 75 parts per million or 5% of the reading, whichever is greater.

Performance

Sensors must be tested and calibrated at least once every five years or per the manufacturer's recommendation, whichever is shorter.

Monitor CO_2 sensors with a system configured to trend CO_2 concentrations in intervals no greater than 30 minutes.

Outdoor air monitoring for mechanically ventilated spaces

Establishment

For variable air volume systems, provide a direct outdoor airflow measurement device capable of measuring the minimum outdoor air intake flow for at least 80% of the outdoor air flow. This device must measure the minimum outdoor air intake flow with an accuracy of +/–10% of the design minimum outdoor airflow rate required in the ventilation section of EQ Prerequisite Minimum Indoor Air Quality Performance. An alarm must indicate when the outdoor airflow value varies by 15% or more from the outdoor airflow setpoint.

For constant-volume systems, balance outdoor airflow to the design minimum outdoor airflow rate required in the ventilation section of EQ Prerequisite Minimum Indoor Air Quality Performance, or higher. Install a current transducer on the supply fan, an airflow switch, or similar monitoring device.

Performance

Calibrate all measurement devices within the manufacturer’s recommended interval.

Outdoor air monitoring for naturally ventilated spaces

Establishment

Provide a direct exhaust airflow measurement device capable of measuring the exhaust airflow. This device must measure the exhaust airflow with an accuracy of +/–10% of the design minimum exhaust airflow rate. An alarm must indicate when airflow values vary by 15% or more from the exhaust airflow setpoint.

Performance

Calibrate all measurement devices within the manufacturer’s recommended interval.

Alarmed openings for naturally ventilated spaces

Establishment

Provide automatic indication devices on all openings intended to meet the minimum opening requirements. An alarm must indicate when any one of the openings is closed during occupied hours.

Performance

None.