



| v3 - LEED 2009

Indoor chemical and pollutant source control

EQc5 | Possible 1 point

Glossary

Intent

To minimize building occupant exposure to potentially hazardous particulates and chemical pollutants.

Requirements

Design to minimize and control the entry of pollutants into buildings and later cross-contamination of regularly occupied areas through the following strategies:

- Employ 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, grills and slotted systems that allow for cleaning underneath. Roll-out mats are acceptable only when maintained on a weekly basis by a contracted service organization.

AND

- Minimize the entry of contaminants into the building from vehicles, pesticides, herbicides, helipads, diesel generators, designated smoking areas, sources of exhaust air, and other sources of potential contaminant as follows:

Provide pressurized entryway vestibules at high-volume building entrances:

Ensure, through the results of mathematical modeling [e.g. Computational Fluid Dynamics (CFD), Gaussian Dispersion Analyses] and/or physical modeling (e.g. wind tunnel, tracer gas) that the air contaminant concentrations at outdoor air intakes are less than the thresholds established for the project under worst case meteorological conditions.

Demonstrate that outside air intake concentrations pollutants meet the limits in the following table OR demonstrate by calculations that indoor concentrations shall not exceed 2.5% of the exposure limits listed in the table.

Pollutants	Maximum Outside Air Intake Concentrations	Standard
Regulated by National Ambient Air Quality Standard (NAAQS)	Allowable Annual average OR 9-hour or 24-hour average where an annual standard does not exist	National Ambient Air Quality Standard (NAAQS)
Other air contaminants	2.5% of 8-hour and short term/ceiling limits	Most stringent of the following: <ul style="list-style-type: none"> Occupational Safety and Health Administration (OSHA) <ul style="list-style-type: none"> Permissible Exposure Limits (PELs) American Council of Governmental Industrial Hygienists (ACGIH) <ul style="list-style-type: none"> Threshold Limit Values (TLVs) National Institute of Occupational Health and Safety (NIOSH) <ul style="list-style-type: none"> Recommended Exposure Limits (RELs)

AND

Design to minimize and control cross-contamination of regularly occupied areas:

- Where hazardous gases or chemicals may be present or used—garages, soiled utility areas, sterilization and disinfection areas, housekeeping/laundry areas and copying/printing rooms—exhaust each space sufficiently to create negative pressure with respect to adjacent spaces with the doors to the room closed.

For each of these spaces, provide self-closing doors and deck-to-deck partitions or a hard-lid ceiling. The exhaust rate shall be at least six air changes per hour with no air re-circulation. (For rooms containing disinfectant and sterilant applications, provide a minimum of 12 air changes per hour.) The pressure differential with the surrounding spaces shall be at least 5 Pa (0.02 inches of water gauge) on average and 1 Pa (0.004 inches of water) at a minimum, when the doors to the rooms are closed.



LEED 2009 Healthcare reference guide supplement with East Asia ACPs