LEED O+M: Existing Buildings | v2009

Indoor air quality best management practices - indoor air quality management for facility additions and alterations

EQc1.5 | Possible 1 point

Intent

To prevent indoor air quality (IAQ) problems resulting from any construction or renovation projects to help sustain the comfort and well-being of construction workers and building occupants.

Requirements

Develop and implement an IAQ management plan for the construction and occupancy phases:

- During construction, meet or exceed the recommended control measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings Under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008 (Chapter 3).
- If the building undergoes a tenant improvement, develop and implement an IAQ management plan for the preoccupancy phases. Perform a flush-out procedure as follows:
  After construction ends and all interior finishes have been installed, install new filtration media and flush out the affected space. The flush out must be done by supplying a total outdoor air volume of 14,000 cubic feet per square foot of floor area while maintaining an internal temperature of at least 60° F and maintaining a relative humidity no higher than 60% where cooling mechanisms are operated. The affected space may be occupied only after the delivery of at least 3,500 cubic feet of outdoor air per square foot of floor area and the space has been ventilated at a minimum rate of 0.30 cfm per square foot of outdoor air or the design minimum outside air rate (whichever is greater) for at least 3 hours prior to occupancy until the total of 14,000 cubic feet per square foot of outdoor air has been delivered to the space. The flush-out may continue during occupancy.
- Protect stored on-site or installed absorptive materials from moisture damage.
- If permanently installed air-handlers must be used during construction, filtration media must be used at each return air grille, and must meet one of the following criteria below. Replace all filtration media immediately prior to occupancy.
  - Filtration media has a minimum efficiency reporting value (MERV) of 8, as determined by ASHRAE Standard 52.2-1999 (with errata but without addenda).
  - Equivalent filtration media Class F5 or higher, as defined by CEN Standard EN 779–2002, Particulate air filters for general ventilation, Determination of the filtration performance.
  - Equivalent filtration media with a minimum dust spot efficiency of 30% and greater than 90% arrestance on a particle size of 3–10 µg.
- Upon the completion of construction, HVAC and lighting systems must be returned to the designed or modified sequence of operations.