American Environmental Laboratories

Environmental Laboratory and Consulting Organization http://aellabs.elephantx.com

LEED Requirements

LEED Testing Requirements

Methods for the Determination of Air Pollutants in Indoor Air," and as additionally detailed in the USGBC's "LEED-NC: Reference Guide."

Demonstrate that the contaminant maximum concentrations listed below are not exceeded:

- 1. Formaldehyde: 50 ppb.
- 2. Particulates (PM 10): 50 micrograms/cu. m.
- 3. Total Volatile Organic Compounds (TVOC): 500 micrograms/cu. m.
- 4. 4-Phenylcyclohexene (4-PH): 6.5 micrograms/cu. m.
- 5. Carbon Monoxide: 9 ppm and no greater than 2 ppm above outdoor levels.

For each sampling point where the maximum concentration limits are exceeded, conduct additional flush-out with outside air and retest the specific parameter(s) exceeded to indicate the requirements are achieved. Repeat procedure until all requirements have been met. When retesting non-complying building areas, take samples from same locations as in the first test.

Air-sample testing shall be conducted as follows:

- 1. All measurements shall be conducted prior to occupancy but during normal occupied hours, and with building ventilation system starting at the normal daily start time and operated at the minimum outside air flow rate for the occupied mode throughout the duration of the air testing.
- 2. Building shall have all interior finishes installed including, but not limited to, millwork, doors, paint, carpet, and acoustic tiles. Non-fixed furnishings such as workstations and partitions are encouraged, but not required, to be in place for the testing.
- 3. Number of sampling locations will vary depending on the size of building and number of ventilation systems. For each portion of building served by a separate ventilation system, the number of sampling points shall not be less than one per 25,000 sq. ft. (2300 sq/ m) or for each contiguous floor area, whichever is larger, and shall include areas with the least ventilation and greatest presumed source strength.
- 4. Air samples shall be collected between 3 and 6 feet (0.9 and 1.8 m) from the floor to represent the breathing zone of occupants and over a minimum four-hour period.

1/1